aeso
ALBERTA ELECTRIC SYSTEM OPERATOR

Powering ON

2012 ANNUAL REPORT

Alberta's continued prosperity depends on a robust electricity system. That means a reliable transmission system and a fair, efficient and openly competitive electricity market that supports investment and provides competitive pricing for consumers.

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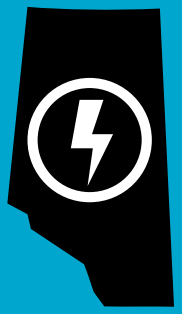
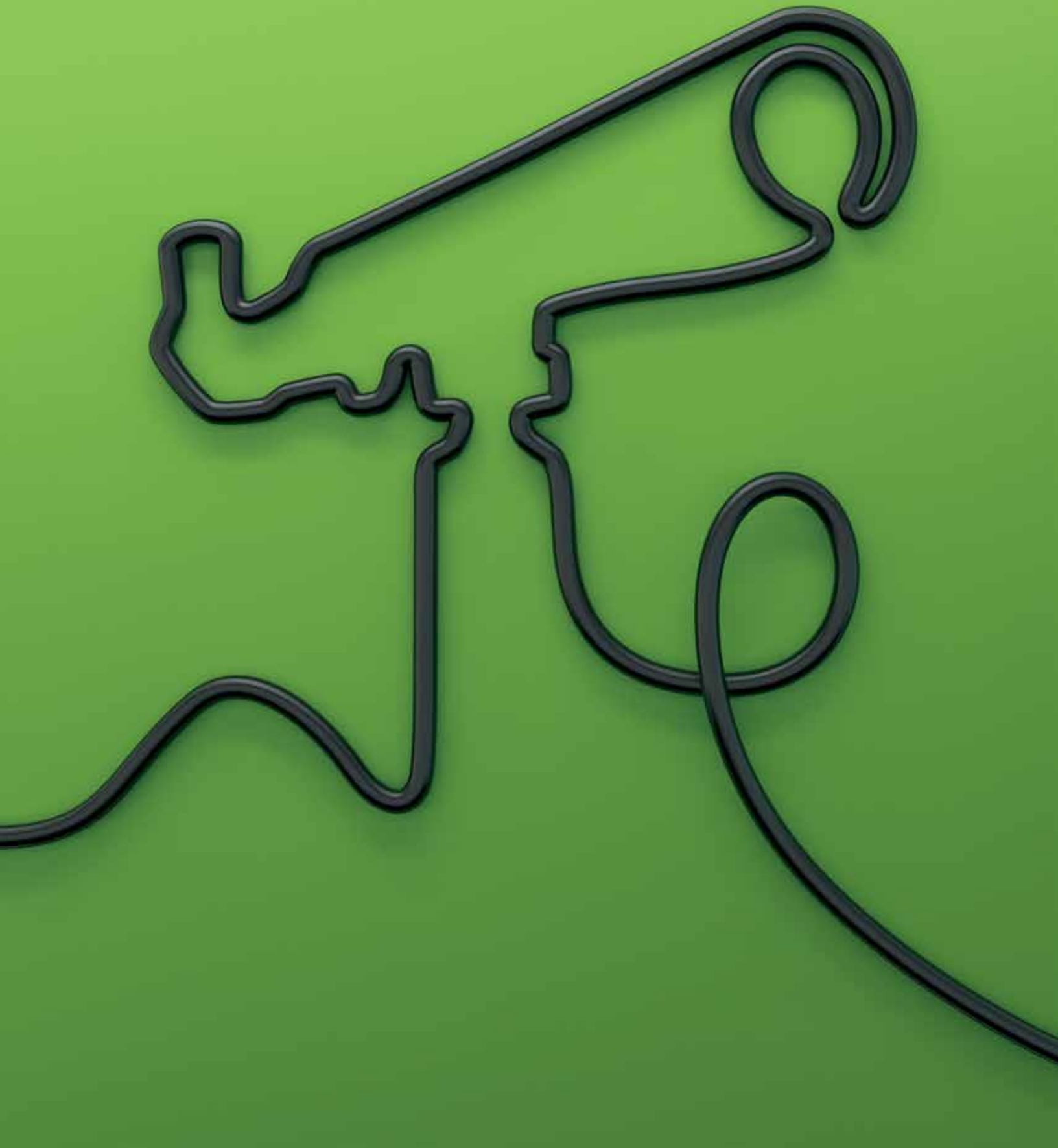


OVER THE PAST 20 YEARS:	OVER THE NEXT 20 YEARS:
Alberta's average electricity demand has risen by **82%**	Alberta's average electricity demand is forecast to grow by **70%**
Alberta's peak electricity demand has risen by **70%**	Alberta's peak electricity demand is forecast to grow by **72%**
Alberta's population has grown by **45%**	Alberta's population is forecast to grow by **34%**
Alberta's gross domestic product (GDP) has risen by **104%***	Alberta's economy is forecast to be the fastest growing in Canada, rising by **68%***

** Adjusted for inflation*

Focusing ON



AESO Vision

The AESO will be seen as a significant contributor to the development of Alberta and the quality of life for Albertans, through our leadership role in the facilitation of competitive electricity markets and the reliable operation and development of the Alberta Interconnected Electric System.

AESO Mission

The AESO 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.

Delivering ON

Letter from the Board Chair

In my eight months as AESO Board Chair, I have had the opportunity to observe the stellar work accomplished in 2012 and know that we will deliver solid performance and achieve a set of challenging objectives in 2013. I have also had the pleasure of acquainting myself with the AESO's very talented and dedicated management team.

Prior to accepting this role, I spent considerable time researching the electricity industry and market framework, the AESO's unique mandate, and the people responsible for the AESO's success. I was impressed then with what I heard and I am even more impressed now that I am directly working with the organization.

The AESO does a tremendous job of planning and operating the province's transmission system and electricity market, keeping the lights on, and ensuring that Alberta continues to be the vibrant province it is today. The market framework serves the province well, and the AESO plays an important role in advocating for a healthy energy market to encourage continued economic prosperity.

The AESO truly takes pride in its mandate to operate in the best interest of all Albertans. This is evident in the commitment and exceptional work ethic of employees at all levels in the organization, as well as the AESO Board. These professionals are independent experts—and they perform their work exceptionally well.

I share with my colleagues a great degree of confidence in the AESO management's ability to lead the important and complex work executed by this organization. The Board's commitment to the AESO and to the province of Alberta is to leverage best practices in our governance and lead at an effective strategic level. To provide a few examples, we conduct thorough risk management procedures; maintain oversight of succession planning and talent management; and are actively engaged in developing and advancing the AESO strategy.

I would like to take a moment to personally recognize and thank former Board Chair Harry Hobbs and former Board Member Nancy Laird. I would also like to thank Gordon Ulrich, who remains on the Board, for his Vice-Chair responsibilities the past two years. Each of these talented individuals has played instrumental roles in shaping the AESO's strategic direction and contributed significantly to our success.

I would also like to congratulate Hugh Fergusson for his new role as Vice-Chair and welcome Board Member Patricia Newson, who joins reappointed Board Members Linda Chambers, and Paul McMillan.

In closing, I extend my appreciation to all AESO employees on behalf of the Board for their terrific work in 2012 and for their commitment to this organization and the continued prosperity of Alberta.

Sarah E. Raiss
AESO Board Chair

Letter from the President and CEO

The AESO has one of the most unique, exciting and challenging roles in Alberta's electricity industry. Our public mandate to plan and operate the electric system and facilitate the wholesale electricity market provides the AESO with as much or more insight, information, and tools than any other single organization.

I am not alone in my enthusiasm. Approximately 500 AESO employees and contractors share my excitement and passion for the interesting and challenging work we do every day to keep the lights on in the province. This is a highly technical and skilled group of professionals who are committed to fulfilling their roles in the best interest of all Albertans.

Our public interest mandate, expertise and years of experience provide us with a clear and objective view of Alberta's electric system and the competitive wholesale market.

From our perspective, the electricity framework has worked and will continue to work well for Alberta. It has reliably served consumers in the fastest growing jurisdiction in North America and generated numerous benefits for the province. The wholesale price of electricity in Alberta is competitive. We have healthy supply margins resulting from numerous new plants constructed since the industry restructured—utilizing various technologies and fuel sources, all completed without public debt. We also have a higher percentage of wind generation on our system than any other province.

In 2012, the AESO successfully advanced multiple initiatives to enable a long-term, robust energy market and sustainable market design. Here are a few highlights. The AESO has:

- Completed the first phase of wind integration and released a recommendation paper to stakeholders for the next phase
- Continued to facilitate the development, integration and restoration of interties. Significant progress was made on the Montana-Alberta Tie Line (MATL) and the AESO is preparing to integrate the new intertie in mid-2013—an important milestone in our work to facilitate the increase of capacity on interties
- Fully operationalized Load Shed Service for imports (LSSi), with continued facilitation of demand-side participation in the market, and initiated work that will allow load to sell spinning reserves
- Implemented and operationalized the Supply Surplus Rule and initiated a review of Minimum Stable Generation-related rules
- Published the *2012 Long-term Outlook*, the AESO's first load and generation forecast with integrated scenario planning

The market framework's continued success is underpinned by a robust transmission system. Further detail about our work supporting much needed transmission reinforcements is described in the pages of this report.

Alberta is in a period of executing on years of expert system planning. Last year we accomplished a great deal to advance these plans. Among many examples, we have:

- Completed 66 energizations of newly developed transmission projects
- Engaged industry stakeholders to gather input into improving the customer connection process
- Filed five system Need Identification Documents (NIDs) and 32 connection NIDs with the Alberta Utilities Commission (AUC)
- Significantly progressed cost monitoring of major transmission projects
- Advanced three major transmission projects and managed over 150 customer connection projects
- Developed and filed a Competitive Process for the AUC's approval, designed to competitively identify parties to build, own, operate and maintain future major transmission reinforcements
- Attended 30 open houses to discuss transmission projects with Albertans in their respective geographical areas

I am proud of these past achievements and I am confident in the great work we will accomplish this year. Some of our priorities for 2013 are:

- Implementing the Competitive Process (the AESO received approval from the AUC in early 2013)
- Continuing to facilitate the development, integration and restoration of interties
- Developing system access business practices
- Evaluating the potential integration of energy storage technologies
- Studying the replacement of market IT systems in concert with the evolution of the market design and structural elements
- Advancing the second phase of wind integration

To be successful in 2013 and beyond, we need to be sharp in our execution, excel at what we do, and continuously seek opportunities to improve.

On July 9, 2012, the Alberta Interconnected Electric System (AIES) experienced a brief period of supply shortfall, which resulted in a requirement to shed load.

Any time we need to shed load we take it extremely seriously and in rare circumstances like July 9, we are required to do so to preserve the integrity of the system as a whole. In the midst of hitting a new summer peak and with eleven generators offline, we needed to shed about two per cent of total load. Although those without power were no doubt negatively impacted, the system, including our industry partners, performed very well given the circumstances.

Our analysis confirmed the event was handled effectively and all established protocols were followed. Since supply shortfall events are rare, the occasion to review our emergency practices and procedures in action is a valuable opportunity to identify improvements for the AESO. We have since developed several recommendations for ongoing improvement that will enable the AESO to continue to operate the AIES in a safe, reliable and efficient manner. These recommendations are included in a detailed report that is available on our website.

In closing, I would like to welcome our new AESO Board Chair Sarah E. Raiss, and newest Board Member Patricia Newson as well as our reappointed Board Members. The diverse expertise, strategic leadership and support of our Board will be instrumental in our ability to advance the important, complex work we will deliver now and in the future.

I would also like to thank the AESO's management team for their exceptional leadership, and all AESO employees and contractors for their continued commitment to operational excellence.

David Erickson
President and Chief Executive Officer

Year in Review

Throughout the past year, the AESO continued to advance its strategic plan and execute its mandate as a not-for-profit statutory company created under the *Electric Utilities Act*. For 2012, this meant considerable focus on the long-term robustness of the energy market, sustainability of the market design in the near term, and the planning and development of a strong and reliable transmission system. This also includes directing the safe, reliable and economic operation of the Alberta Interconnected Electric System, pursuing day-to-day operational excellence, and maintaining the trust and respect of our customers through reliable service and clear communication.

At all times the AESO has demonstrated its values—credible character and great teamwork within a high-performance, service-driven culture—in the course of this work. The AESO's *2012 Annual Report* outlines its eight strategic objectives, connecting each one directly to key achievements within the areas of Market Development, Electric System Development, Customer Access Services, Electric System Operations, Employees, Technology, Stakeholder Engagement, and Risk Management and Compliance Processes.

Market Development

We will operate a fair, efficient and openly competitive (FEOC), real-time energy-only wholesale electricity market, where market evolution is driven by participants and the AESO.

There were many achievements in 2012 from a market-development perspective. Among those, the AESO implemented and operationalized a new Supply Surplus Rule and initiated a review of Minimum Stable Generation-related (MSG) rules. The AESO also published the *Annual Market Statistics* report and the *2012 Long-term Outlook*; the AESO's first load and generation forecast with integrated scenario planning. A system access options paper was published as well.

Due in part to wind solutions and intertie restoration, the AESO helped enable increased load participation in 2012 across multiple products and markets. This work coincided with the development of an integrated corporate strategy to proactively address risk to the market framework, studying concerns such as supply adequacy and transmission congestion.

Wind Integration

Building further on the progress demonstrated in 2011, the AESO continued to evolve long-term wind options and solutions, connecting greater amounts of wind generation into the Alberta Interconnected Electric System (AIES). Phase 1 was completed, allowing for the integration of up to 1,500 MW of wind generation. A wind dispatch pilot project was successfully completed in the fourth quarter of 2012 with preliminary results of the dispatch trial published in early 2013.

Moving to the next stage, the AESO created recommendations for Phase 2, and published a recommendation paper in December 2012. Stakeholder comments were requested for February 2013. Phase 2 will allow for up to 2,500 MW and more of additional wind integration and may include refinements to ancillary service products.

Interties

The development, integration and restoration of interties also saw continued progress in 2012, constituting a major step towards further market enhancement by the AESO. A major component of market enhancement is the improvement of intertie transfer capability.

In December 2011, after major stakeholder consultation, the AESO filed its Available Transfer Capability and Transfer Path Management Rule (203.6) with the AUC. The AUC issued its approval in early 2013, in which it stated it had "not been persuaded that the rule is against the public interest or the fair, efficient and openly competitive operation of the electricity market in Alberta or that the rule is technically deficient."

Also in 2012, the AESO continued with integration of the Montana-Alberta Tie Line (MATL)—slated for connection in mid-2013—and initiated a study of further intertie restoration options. An intertie restoration paper was published in the third quarter of 2012, containing response to stakeholder feedback, proposed standards, criteria and considerations for determining operating limits, a timeline for additional restoration activities, and more.

Another notable achievement was the year's progress on implementation of the Western Electricity Coordinating Council (WECC) Dynamic Scheduling System to enable dispatchable interties.

Demand-side Participation

With all Load Shed Service for imports (LSSi) providers selected and integrated into the program, LSSi became fully operational in 2012. The AESO continues to facilitate demand-side participation in the market and, also in 2012, initiated work that will allow load to sell spinning reserves.

Electric System Development

We will lead the development of a reliable transmission system, including interties to other jurisdictions, which fully enables operation of the competitive market.

Major steps were taken to both increase and improve electric system development over the past year. An advanced metrics reporting process was implemented, to continue monitoring accountability of all parties affecting transmission development. The AESO initiated detailed operations planning for HVDC and surrounding AC facilities. Client support was boosted, with the restructuring of the AESO Transmission department into the Transmission Project Delivery and Transmission System Planning and Performance groups.

The consultation and engagement process continued to be a priority in the AESO's transmission-related public outreach. An important component of that is the Regional Advisors Program, created in 2008 to help the AESO gather feedback on electricity industry issues from communities around the province.*

Competitive Process

The AESO filed the application for its Competitive Process in September 2011 and received AUC acceptance, with conditions, in early 2013. Implementation of the Competitive Process will be a major step towards elevating the level of competition in the electricity transmission marketplace—and exerting downward pressure on the costs associated with transmission system expansion. The first project to use the new process will be the Fort McMurray Transmission Project, which consists of approximately 500 km of transmission line and associated facilities between the Edmonton and Fort McMurray areas.

System and Connection Projects

The AESO filed a substantial number of Needs Identification Documents (NIDs) in 2012 including ones for Foothills Area Transmission Development (FATD) East and the Fidler, Kettle River and Algar substations—as well as for the Christina Lake, Red Deer, and Northwest of Fort McMurray transmission development projects. A total of 32 connection NIDs and five system project NIDs were filed. AUC approval was received for Christina Lake, Red Deer, and Northwest of Fort McMurray. In conjunction with this work, the AESO supported key regulatory hearings, participated in several consultation programs in support of transmission facility owner (TFO) Facility Applications, and led and implemented numerous engagement programs for connection projects.

Edmonton to Calgary Transmission System Reinforcements

Both lines within the Edmonton to Calgary Transmission Reinforcement project—the Eastern Alberta Transmission Line (EATL) and Western Alberta Transmission Line (WATL)—received Facility Application (FA) approval from the AUC in 2012. ATCO Electric Ltd. was granted approval for the EATL application in November, and the project has a planned in-service date of late 2014/early 2015. AltaLink Management Ltd. was granted approval of their application for WATL in December, with a planned in-service date of early 2015. The approvals came after FA hearings in which the AESO provided technical and regulatory support.

* The AESO's Regional Advisors and the regions they represent are: Jim Graham (Southwest Alberta), Tony Hladun (Central East Alberta), Jim Horsman (Southeast Alberta), Sandy McDonald (Northwest Alberta), Ross Risvold (Central West Alberta).

2012 Long-term Transmission Plan

Stakeholder consultation with the general public, elected officials, special interest groups and others provides the AESO with a broad perspective and valuable input used to improve transmission planning. Building on an extensive public consultation process undertaken in 2011—which included the exploration of geographic options, potential technologies and environmental and social considerations—the AESO subsequently filed its *2012 Long-term Transmission Plan* (2012 LTP) with the AUC in June.

This satisfies the statutory obligations laid out in the *Electric Utilities Act* and *Transmission Regulation*. The 2012 LTP outlines the transmission facilities required to meet forecast load growth, bring needed new generation facilities on line and ensure continued reliability, as well as facilitate fair and openly competitive operation of the market and support long-term economic development in Alberta.

Transmission System Planning

As per Section 15 of the *Transmission Regulation*, the AESO successfully developed a robust transmission plan to accommodate 100 per cent of in-merit energy under normal conditions and 95 per cent of in-merit energy under abnormal conditions. The AESO also developed and documented a stakeholder consultation process fully aligning with AESO best practices and the AESO transmission system planning process—leading to revisions to the *AESO Best Practices and Standards for Stakeholder Consultation* document.

Cost Monitoring and Reporting

Along with the publishing of a Cost Accountability recommendation paper, the AESO firmly established a cost monitoring/management framework in 2012. Internal communication and information documentation processes to support AESO input into the June and December Transmission Facilities Cost Monitoring Committee reports were established—with AESO input and reporting now a regular, ongoing process. Increasing the visibility of this new initiative, a new website page and information sheet was developed as well.

Optimizing the Connection Process

The AESO successfully realigned resources and processes for improved delivery of system and customer connection projects in 2012, and assisted with the hosting of several education sessions for market participants covering subjects such as behind-the-fence generation and energization. Supporting this work, the AESO also successfully launched a well-received review of the connection process, gathering a wealth of stakeholder feedback to guide further process enhancements.

Customer Access Services

We will consistently meet or exceed customer expectations in the delivery of AESO services.

An increased number of energizations and reduced overall cycle times in comparison to the increased volume of connection projects marked just some of the successes within Customer Access Services. In total, over 150 customer connection projects were advanced. The AESO also began developing a draft rule and information document for stakeholder consultation that will enable further enhancements to customer access in the future. As a result of its review of the connection process and industry innovation workshop, 2012 closed with the AESO noting stronger communication, trust and respect with its customers.

Customer Connection Projects

With over 66 connection, contract and behind-the-fence projects successfully energized, the AESO made significant progress in 2012. Not only did the AESO facilitate the advancement of approved System Access Service Requests for customer connection projects, 85 per cent of agreed-upon in-service dates were met. Enhancements to the AESO's enterprise-wide metrics reporting helped increase the accountability of all parties affecting customer access processes.

Customer Connection Cycle Times

Maintaining an average customer connection cycle time of 27 months, the AESO continues to be keenly focused on further reducing cycle times. A recommendation paper was issued for an abbreviated NID process and stakeholder feedback was received and published along with AESO responses.

Market Participant Choice

A key achievement towards improved customer access, the AESO initiated a Market Participant Choice (MPC) initiative in 2012 in order to accurately evaluate MPC alternatives. This initiative was well supported, with the AESO also publishing an MPC discussion paper and engaging industry. The AESO plans to continue to involve an industry working group while using a pilot project to test the feasibility of alternatives.

Electric System Operations

We will direct the safe and reliable operation of the Alberta transmission and market system in a fair, efficient, and openly competitive manner.

The optimal management of operating limits for both the short term and long term was a notable highlight within Electric System Operations in 2012. Other achievements included the refinement of several internal processes, enabling the AESO to meet WECC criteria on data submission and allowing the WECC Reliability Coordinator to now model the system as per their standards. The deployment of additional Energy Management System (EMS) functionality, wind management tools and the integration of new rules, products and technologies—such as Operations Support Tools and Load Shed Service for imports—were among the important milestones for 2012. The AESO also developed and documented technical protocols and operating procedures for the integration and daily operation of HVDC as part of its ongoing commitment to safe and reliable electric system operations.

Alberta Reliability Standards

The AESO maintained its strong focus on the continued development and implementation of Alberta Reliability Standards (ARS), filing eight with the AUC in the fourth quarter of 2012. Seven have received AUC approval to date. The year closed with one ARS in preparation for consultation with stakeholders, and three pending filing with the AUC. As of yearend, two were pending approval in the United States. Updates were also made to the applicability sections of 10 existing ARS, and were subsequently filed with the AUC.

Energy Management System/ System Coordination Centre

The AESO System Coordination Centre (SCC) contributed greatly to the increased number of energizations logged in 2012. This was due in part to refinement of the operations scheduling process and the OPTRA process, where Transmission and Operations team members gather required technical data for EMS Operations.

An EMS Phase 2 project was implemented, providing application enhancements, advanced application capabilities and an improved testing environment.

An SCC Orderwire project was also implemented, creating a reliable second-level voice telecommunications tool for use in worst-case operating scenarios, including system restoration of the Alberta Interconnected Electric System. The AESO also began the development of a new Back-up Control Centre to meet longer-term needs, satisfy Critical Infrastructure Protection Reliability Standards and generate cost savings.

Emergency Practices and Procedures

The July 9 supply shortfall event—and subsequent requirement to shed load in order to preserve integrity of the AIES—created an opportunity for the AESO to test its processes and procedures for managing the grid. The AESO has conducted an internal review of all processes and procedures that came into effect during the event. The *AESO Report on the Load Shed Event of July 9, 2012* identifies the sequence of events leading up to the directive to shed load and the root causes of these events, and provides recommendations for corrective actions to alleviate power system reliability concerns.

In 2013, the AESO will continue to review internal supply shortfall procedures and request generation facility owners to review maintenance practices, procedures, quality control programs and effects of ambient temperatures on capability levels. Additional steps include reviewing supply adequacy metrics, conferring with distribution facility owners on load shed plans, reviewing the use of interties during shortfall situations, and implementing changes in public and market participant communications. The AESO will report periodically on the progress of all recommendations.

Employees

We will design a high performance culture and provide an environment that makes the AESO an exceptional place to work, learn, succeed and make a difference.

Recognizing that today's labour market is increasingly competitive—and that talent is a key enabler of success—there was considerable emphasis placed upon the attraction, development and retention of employees in 2012. This included an increased use of social media to attract candidates, and updates to career website content and materials that accurately reflect the organization's culture and employee values. The AESO also developed a number of talent management practices such as an engineer-in-training rotation program, an engineering technical skills framework, technical training workshops, graduate studies, and leadership skills workshops.

Technology

We will learn and leverage leading technologies.

The AESO continued to invest in operating and infrastructure technologies throughout 2012. Major projects in this area included the implementation of a new, high-speed, secure core network infrastructure and the upgrading of all desktop computers to Windows 7 and Office 2010, improving security and compatibility as a result. These investments position the AESO well to better support operations and implement future endeavours—such as market and transmission system initiatives—that will require significant infrastructure support.

Stakeholder Engagement

We will build appropriate levels of public, industry and government support to ensure effective execution of our mandate.

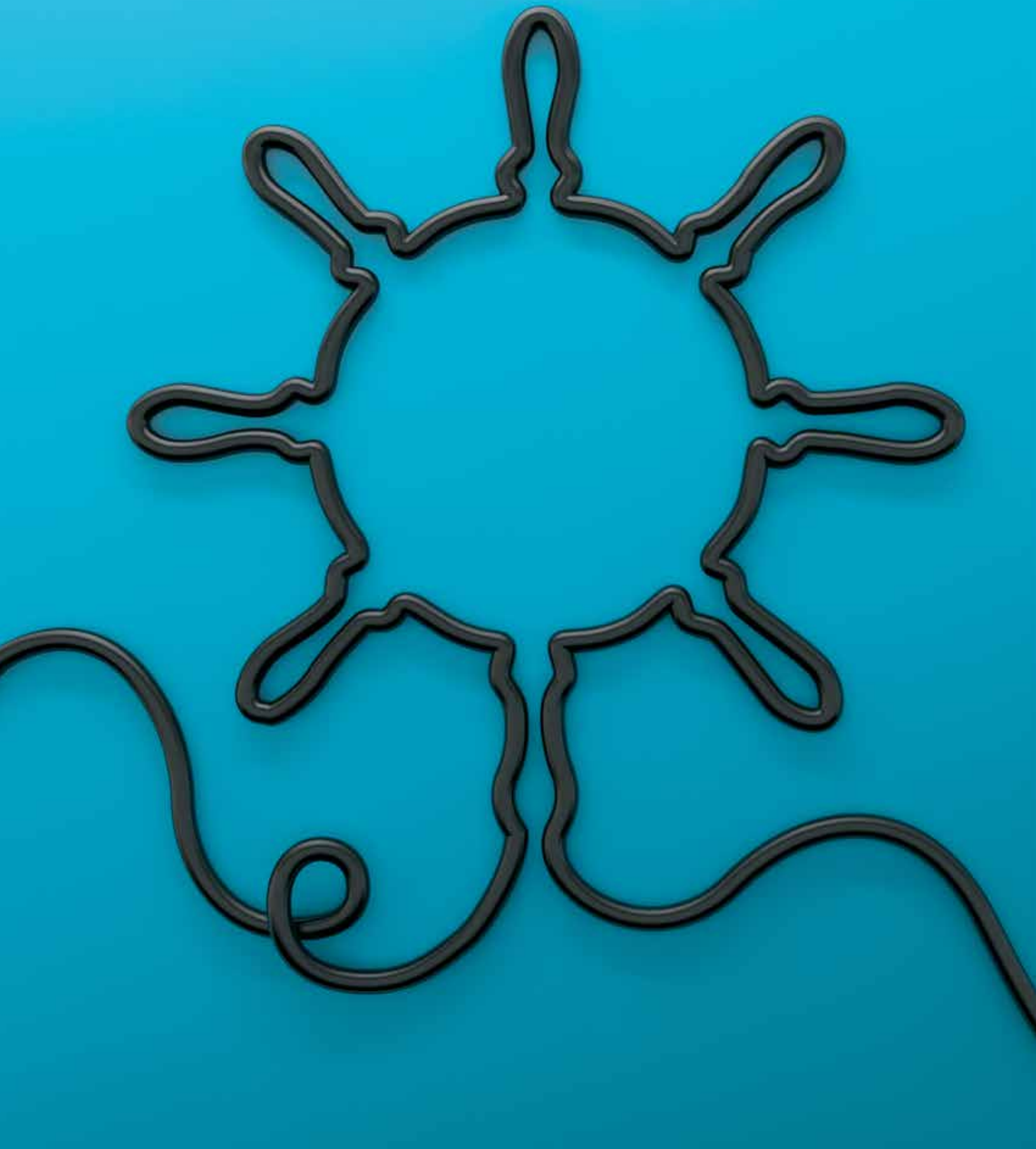
To fulfil the AESO's mandate of operating in the public interest—and our commitment to help all Albertans understand the important role electricity plays in everyday life—the AESO places a high degree of importance on stakeholder engagement. In addition to participating in numerous open houses and stakeholder engagement sessions across the province, the AESO also reached 1.3 million Albertans in March and October through *Powering Albertans* magazine. Supporting these initiatives, the AESO regularly published new content to both our public engagement (poweringalberta.com) and corporate (aeso.ca) websites, and continued energy literacy partnerships with organizations such as Science Alberta and Inside Education.

Risk Management and Compliance

We will proactively manage risks and operate the AESO and the Alberta Interconnected Electric System compliantly.

The AESO's risk management and compliance processes continued to evolve through 2012. In addition to the continued development and implementation of Alberta Reliability Standards (ARS), notable changes were made to the tools and training support involved in the AESO's self-certification process. The AESO drew upon its expertise across several business units to verify compliance status to AESO-applicable Alberta Reliability Standards (AARS) requirements and complete its second annual self-certification. Confirming compliance, the results of this process were submitted to WECC and the Market Surveillance Administrator. Further maturation of the AESO's risk management processes, capabilities and culture is planned throughout 2013.

Steering ON



AESO Board as at December 31, 2012

Seated left to right: Hugh Fergusson, Sarah Raiss, Gord Ulrich
Standing left to right: Patricia Newson, Robert McClinton, Paul McMillan, Jan Carr, J.D. Hole, Linda Chambers

AESO Board

The AESO Board continues to enhance its governance through a continuous improvement approach. The AESO Board, its Committees and Task Force, as well as individual Members, approach governance processes and procedures with a view to aligning with the AESO's vision, mission and principles.

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

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

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's mandate is derived from the EUA and related regulations and it is governed by its Board (AESO Board). The AESO Board consists of individuals (Members) appointed by Alberta's Minister of Energy (Minister).

The *AESO Board Charter and Governance Document* and AESO Bylaws set out the general responsibilities of the AESO Board. 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 approves the AESO's strategic plan and its annual business plan and budget. The AESO Board oversees corporate operations, including cost and risk management.

The *Alberta Public Agencies Governance Act*[1] also sets out procedures to formalize the roles and mandate of the AESO in its relationship with the Government of Alberta.

AESO Board Committees and Task Force

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

Audit Committee (AC)

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 and internal audit processes and the AESO's process for monitoring compliance with laws and regulations.

Human Resources, Compensation and Nominations Committee (HRCNC)[2]

The HRCNC provides consultation, advice and recommendations to the AESO Board with respect to human resources and management compensation as well as nomination recommendations to the Minister. This includes AESO executive compensation levels, objectives and performance of the AESO President and Chief Executive Officer (AESO CEO), the AESO's objectives and performance, officer selection, AESO Board and AESO executive succession planning, human resources programs (including salary planning, benefits and incentive design), and human resources practices.

Corporate Governance Committee (CGC)[3]

The CGC provides consultation, advice and recommendations to the AESO Board regarding compliance with legislation, Member compensation, and maintenance and enhancement of the AESO's corporate governance practices. This includes the annual review of AESO governance documents and processes, Member orientation and ongoing education, AESO Board performance assessments and best practices in governance matters.

[1] This received Royal Assent on June 4, 2009 but has not yet been proclaimed into law.

[2] Effective January 1, 2013, renamed "Human Resources and Compensation Committee".

[3] Effective January 1, 2013, renamed "Corporate Governance and Nominations Committee".

Transmission Advisory Task Force (TATF)

The TATF provides the AESO Board with assistance and recommendations in fulfilling certain of the AESO Board's governance and oversight responsibilities related to the planning and development of the AIES and Competitive Process.

AESO Board Members

Members have extensive professional and business knowledge and experience derived from careers in various fields, including energy, utilities, commercial construction, engineering, technology, law, accounting and government. The following are Members who served during 2012.

Member	Member Since	Current AESO Board Position	Committee/Task Force Member
Harry Hobbs[4]	2004	Chair	AC; CGC; HRCNC; TATF
Gordon Ulrich	2009	Vice-Chair	Chair TATF; AC; CGC
Hugh Fergusson	2007	Member	Chair HRCNC; AC; TATF
Robert McClinton	2007	Member	Chair AC; HRCNC; TATF
Jan Carr	2009	Member	AC; CGC; TATF
Paul McMillan	2010	Member	AC; HRCNC; TATF
Linda Chambers	2010	Member	Chair CGC; TATF
J.D. Hole	2010	Member	HRCNC; TATF
Sarah Raiss[5]	2012	Chair	ex officio[6]
Patricia Newson[7]	2012	Member	

AESO Board Effectiveness

AESO Board Assessments

The AESO Board, its Committees and Task Force have performance assessment processes in place. Assessments are conducted annually and specific follow-up action items are identified and tracked year over year. Assessments are completed on the AESO Board as a whole; the AESO Board Chair; the AC, HRCNC, CGC and TATF; Chairs of the AC, HRCNC, CGC and TATF; and each Member.

Strategy

The AESO Board oversees the strategic planning process including an annual strategic offsite meeting. In each AESO Board meeting, the CEO provides an update on strategic priorities and accomplishments, and the AESO Board engages in a discussion thereof.

[4] Term ended August 31, 2012.

[5] Appointed as Chair September 18, 2012.

[6] The Chair is an ex officio member of all Committees and the Task Force.

[7] Appointed as a Member December 18, 2012. Ms. Newson was assigned to committees in January 2013.

Risk Management

The AC reviews risks and mitigation in detail. The AESO Board provides input into the identification and prioritization of risks as well as reviewing and monitoring risk and mitigation processes, plans and actions.

Financial Management

The AC oversees internal control processes. The Controls & Audit Services group and external auditors report to the AC. This ensures excellence and accuracy in financial reporting. The AESO Board as a whole approves the annual report and MD&A.

Succession Planning

The HRCNC reviews the succession planning processes and talent management processes for the AESO as a whole and reviews succession and development plans for all AESO executives and key positions. The AESO Board reviews the succession and development plans for the CEO and AESO executive officers.

In Camera Sessions

The AESO Board conducts an in camera session without management at each of the AESO Board, Committee and Task Force meetings.

Charters and Work Plans

The AESO Board, Committees and the Task Force each have a Charter setting out their detailed mandate and an annual Work Plan which guides the priorities and work to be completed in any given year.

Remuneration of Members

An independent, expert, third party review of Member remuneration is conducted annually, using benchmark comparisons to similar roles in Canadian organizations with an emphasis on Alberta. Member remuneration has not increased since the incorporation of the AESO in 2003.

A summary of remuneration Members are eligible to receive is as follows:

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

As of September 18, 2012 when Ms. Raiss was appointed, the Chair of the AESO Board does not receive meeting fees for AESO Board, Committee or Task Force meetings and has a flat retainer of $90,000.

Members are eligible to receive certain health and insurance benefits including dental, health, life insurance and accidental death and dismemberment insurance.

Meeting Attendance and Remuneration

In 2012, the attendance of the Members at AESO Board, Committee and Task Force meetings was as follows:

AESO Board Member	AESO Board	AC	HRCNC	CGC	TATF	Meeting Attendance	Per cent Attendance	2012 Remuneration[8]
Harry Hobbs	5 of 5	3 of 3	2 of 2	1 of 1	3 of 3	14 of 14	100%	$ 74,000
Jan Carr	6 of 8	N/A	N/A	3 of 3	4 of 4	13 of 15	87%	$ 41,000
Hugh Fergusson[9]	8 of 8	4 of 4	4 of 4	N/A	3 of 3	19 of 19	100%	$ 55,000
Robert McClinton[9]	8 of 8	4 of 4	4 of 4	N/A	3 of 3	19 of 19	100%	$ 49,000
Gordon Ulrich	8 of 8	4 of 4	N/A	3 of 3	4 of 4	19 of 19	100%	$ 53,000
Paul McMillan[10]	8 of 8	4 of 4	4 of 4	N/A	4 of 4	20 of 20	100%	$ 45,000
Linda Chambers[11]	8 of 8	N/A	N/A	3 of 3	4 of 4	15 of 15	100%	$ 51,000
J.D. Hole	7 of 8	N/A	4 of 4	N/A	4 of 4	15 of 16	94%	$ 39,000
Sarah Raiss	2 of 2					2 of 2	100%	$ 26,000
Attendance	60 of 63	19 of 19	18 of 18	10 of 10	29 of 29	136 of 139		
Per cent Attendance	95%	100%	100%	100%	100%	98%		

The total remuneration, including benefits, provided to the Members in 2012 was $472,000.

AESO Executive Compensation

Program Objectives

The AESO compensation program (Program) is an integrated Program designed to attract, retain and motivate the calibre of executives required to support the achievement of the AESO's statutory mandate, corporate vision and business objectives. Accordingly, the compensation philosophy and programs have been built on the following objectives:

- To focus AESO executives on the AESO's business objectives;
- To attract and retain qualified and talented executives to carry out the AESO's mandate; and
- To reward a combination of demonstrated results and competencies.

The philosophy underlying these objectives is that total compensation for the AESO executive must be competitive with industry comparators in total target cash to attract and retain the skills and competencies necessary to fulfill the AESO's mandate.

[8] Total includes base retainer, Vice-Chair retainer, Committee and Task Force Chair retainer and meeting fees, and excludes benefits.

[9] The AESO Board increased the TATF membership in early 2012 and, as a result, Members unable to attend a specific, pre-scheduled TATF meeting due to a conflict were excused.

[10] Member participated in two meetings as a consultant pending reappointment.

[11] Member participated in two meetings as a consultant pending reappointment.

Program Governance

The HRCNC oversees Program governance. The HRCNC reviews compensation objectives, policies and programs and makes recommendations to the full AESO Board.

The AESO Board and HRCNC, in carrying out their respective mandates, have access to AESO management's perspectives as well as those of expert external consultants. AESO executive compensation is reviewed annually with respect to Program design, industry compensation trends, actual performance, internal existing compensation and external market relativities.

Market Comparisons

The AESO regularly benchmarks compensation to similar positions in Canadian organizations. The peer group comparators include a mixture of utilities, energy companies, engineering companies and public sector organizations.

Market data is compared with respect to base pay, total cash compensation (base salary and short-term incentive), and total direct compensation (base salary, short-term incentive, perquisites and long-term incentives). Base compensation is targeted at the 50th percentile of the market comparators. Compensation is therefore targeted at the median of total target cash, and may be between the 50th and 75th percentile based on excellent sustained performance.

In addition to the comparisons outlined above, the AESO Board reviews available compensation data for other North American Independent System Operators as another point of reference.

Roles

The AESO's total compensation program includes base pay, a short-term incentive plan, a flexible benefits program and a group retirement and savings program. There is a non-AESO executive, one-time, limited staff retention plan as well. For analysis and advice on market comparators, compensation trends and comparator information, the HRCNC obtains the services of an independent external expert. In 2012, the services of Mercer were utilized. The services of Towers Watson were utilized in the determination of compensation going forward.

The HRCNC reviews the information and confers with the AESO CEO. Pay-for-performance adjustment recommendations are based on demonstrated results against objectives established at the beginning of the year as well as competencies, and are then put forward to the AESO Board for review and approval. The Chair of the AESO Board and the Chair of the HRCNC make recommendations regarding the CEO's performance and pay based on the CEO's individual performance, corporate performance and market data. The AESO Board approves the final pay.

Base Pay

Base Pay is individually determined for each AESO executive position based on comparative market data. In addition to market data, base pay increases are based on individual performance on key accountabilities, achievement of business objectives and demonstration of competencies as recommended by the HRCNC and approved by the AESO Board.

Short-term Incentive Plan

The short-term incentive plan (STIP) is an annual program available to all AESO employees and subject to the discretion of the AESO Board. Subject to AESO Board approval, the STIP is a lump sum cash award based on two components: corporate performance and individual performance.

The corporate achievement component is recommended by the CEO to the HRCNC and is subject to approval by the AESO Board. The individual achievement component is recommended by the CEO to the HRCNC and is factored in to the total incentive payment. In the event a corporate component is awarded by the AESO Board, both components are used to determine resulting incentive payments. The CEO's performance and STIP payment is determined by the Chair of the AESO Board and the Chair of the HRCNC and approved by the AESO Board.

The AESO CEO's target STIP is 50 per cent of base pay earnings, with the ability to earn up to 100 per cent of earnings for exceptional individual and corporate performance against pre-established objectives. The

Senior Vice-President's target STIP is 35 per cent of earnings with the ability to earn up to 70 per cent and the Vice-Presidents' target STIP is 25 per cent of earnings with the ability to earn up to 50 per cent. For the CEO, the allocation of corporate versus individual performance for the foregoing is 80/20 per cent and for the other AESO executives it is 70/30 per cent.

Long-term Incentive Plan

AESO has no long-term incentive plans for any employees including the AESO executives.

Flexible Benefits

The flexible benefits program for all AESO employees provides for life insurance, dependent life insurance, accidental death and dismemberment, sick leave and short-term disability, group and individual long-term disability, critical illness, dental and health care benefits, as well as a health spending account for additional relevant expenses. Perquisites such as parking and fitness allowances are provided.

Registered Retirement and Group Savings Plans

A group plan is provided to all AESO employees to which the AESO contributes six per cent of base salary to a registered retirement or non-registered savings account. In addition, the AESO will match up to three per cent of salary for any voluntary contributions made. This can result in a total retirement savings contribution of nine per cent of base salary by the AESO.

Other Considerations

An employment agreement outlining a severance provision for termination without cause is in place for the CEO and one other AESO executive.

AESO Executive Compensation

The table below details the total compensation for the year ended December 31, 2012 for the AESO executive officers listed below.

Position	Name	Base Salary	STIP	Perquisites[12]	Benefits & Savings[13]	Other[14]
President & CEO	David Erickson	432,640	305,000	12,600	48,913	41,600
SVP Corporate Services & CIO	Sandra Scott[15]	157,794		3,348	19,605	340,000
Vice-President Operations	Mike Law	251,160	84,452	7,180	32,579	23,900
Vice-President Market Services	Kelly Gunsch	251,004	83,459	6,600	32,565	23,700
Vice-President Finance	Todd Fior	233,002	76,600	6,180	30,945	

[12] Perquisites include car allowance, parking and fitness allowance.

[13] Benefits & Savings include group savings/RRSP, dental, health, accidental death & dismemberment and critical illness insurance.

[14] Other includes retiring allowance and one-time payments.

[15] Sandra Scott resigned effective July 15, 2012.

AESO Board and Management Governance Practices

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

AESO Codes of Conduct

The AESO maintains codes of conduct applicable to the 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 Code of Conduct—Officers, Employees and Contractors* is a policy all new employees are required to review and agree to abide by from their first day of employment. All employees must, at least annually, review and confirm compliance/non-compliance with and agree to abide by it. Similarly, each Member is bound by the *AESO Members' Code of Conduct*, and Members must also confirm compliance at least annually.

Strategic Planning and Budget Development

The strategic plan, 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, strategic objectives, strategies and business 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 initiatives, budgets and forecast costs are established.

As a part of the AESO's development of its business initiatives, budgets and forecast costs, the AESO undertakes a consultation process with stakeholders that 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 initiatives, budgets and forecast costs proposed for the upcoming year.

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 provide input by submitting written comments on the proposed business initiatives, budgets and forecast costs, and meeting with the AESO Board to further clarify those comments. At the conclusion of the BRP, the AESO Board issues a decision on the AESO's proposed business initiatives, budgets and forecast costs.

Performance Management

The AESO's salary administration process is pay-for-performance and is designed to align with and attain the goals to be achieved at the corporate level. The corporate goals are initially developed by the AESO executive based on business priorities set out in the strategic plan and the business plan. The AESO Board provides oversight and approves annual corporate goals.

Department plans and individual goals, which are developed annually, are designed with a view to support achievement of the corporate goals and advance the strategic plan. The individual AESO employee goals and departmental plans are established and approved by the AESO executive and management. The AESO CEO's goals are approved by the AESO Board.

Performance Reporting

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

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 risk management reporting is provided to the Security Policy and Risk Committee, senior management and the AC, which details identified risks, their status and related mitigation strategies. The AESO Board reviews risks as brought forward by the AC.

The AESO prioritizes its risks and incorporates them into the annual goal-setting process as determined appropriate. Risk mitigation includes development and implementation of appropriate corporate policies, including various financial policies. These policies are communicated to employees and are accessible by employees at all times.

Internal Controls

Internal controls have been designed and implemented by AESO management. These controls occur at different levels of the organization and provide AESO management and the AC with reasonable assurance of achieving:

- Strategic initiatives and goals;
- Effective and efficient operations;
- Reliability of financial reporting;
- Compliance with laws, regulations, policies and procedures;
- Protection against fraud; and
- Safeguarding of assets.

Audits/Reviews/Procedures

The AESO's Controls & Audit Services group was established in 2010 and reports to the AC. This function is a component of the AESO's governance framework and evaluates the organization's governance, risk management and control processes, as designed and represented by AESO management, to determine they are adequate and functioning as intended.

Various audits, reviews and procedures are performed throughout the year by Controls & Audit Services. When required, third party expertise is engaged to assist or supplement internal resources to execute reviews and assessments. The annual financial statements of the AESO are audited by an independent external audit firm, Ernst & Young.

AESO Executive

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

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

The 2012 executive team is as follows:

David Erickson
President and Chief Executive Officer

Sandra Scott[16]
Senior Vice-President, Corporate Services and Chief Information Officer

Bill Baker
Vice-President, Information Technology

Shan Bhattacharya[17]
Vice-President, Transmission

Todd Fior
Vice-President, Finance

Kelly Gunsch
Vice-President, Market Services

Heidi Kirrmaier
Vice-President, Regulatory

Mike Law
Vice-President, Operations

Jerry Mossing[18]
Vice President, Transmission Planning and Performance

Greg Retzer[19]
Vice President, Project Delivery

Larry D. Kram
General Counsel and Corporate Secretary

[16] Resigned effective July 15, 2012.
[17] Resigned effective December 15, 2012.
[18] Appointed effective July 1, 2012.
[19] Appointed effective July 1, 2012.

Reporting ON

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

This management's discussion and analysis of financial condition and results of operations (MD&A) as of February 12, 2013 should be read in conjunction with the Alberta Electric System Operator's (AESO) audited financial statements for the years ended December 31, 2012 and 2011 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 and promotion of Alberta's fair, efficient and openly competitive energy-only market for electricity; 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, intangible and capital asset 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	**2012**	2011	Change	% Change
Collections	**1,573.1**	1,489.1	84.0	6
Deferred revenue	**(17.5)**	(23.0)	5.5	(24)
Other revenue	**1.5**	2.3	(0.8)	(35)
Total revenue	**1,557.1**	1,468.4	88.7	6
Transmission operating costs	**1,410.9**	1,337.3	73.6	6
Other industry costs	**26.6**	22.4	4.2	19
General & administrative costs	**94.3**	88.6	5.7	6
Interest costs	**0.9**	2.6	(1.7)	(65)
Amortization	**24.4**	17.5	6.9	39
Total costs	**1,557.1**	1,468.4	88.7	6

Total Costs

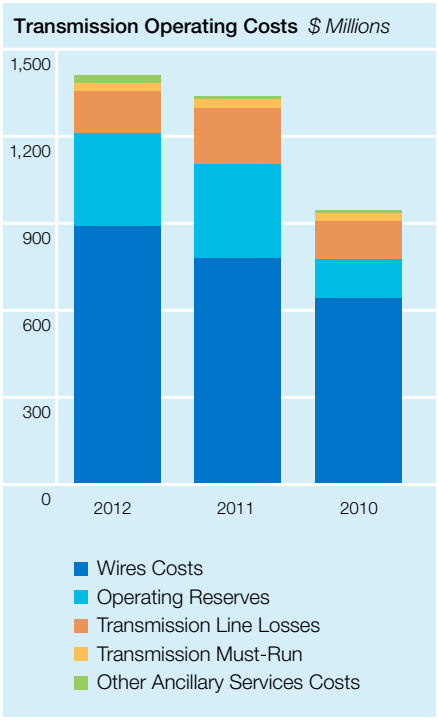
Transmission Operating Costs

Transmission operating costs represent wires costs, operating reserves, transmission line losses, transmission must-run and other ancillary services costs. In 2012, transmission operating costs are $1,410.9 million, which is $73.6 million or six per cent higher than the 2011 costs of $1,337.3 million. This increase is mainly associated with increased wires costs in 2012 resulting from Alberta Utilities Commission (AUC) decisions on regulated rates charged by the owners of transmission facilities (TFOs) partially offset by a decrease in transmission line losses resulting from lower pool prices in 2012 compared to 2011.

($ Millions) Years ended December 31	**2012**	2011	Change	% Change
Wires costs	**889.8**	779.7	110.1	14
Operating reserves	**320.6**	324.9	(4.3)	(1)
Transmission line losses	**144.0**	190.4	(46.4)	(24)
Transmission must-run	**29.9**	32.8	(2.9)	(9)
Other ancillary services costs	**26.6**	9.5	17.1	180
Transmission operating costs	**1,410.9**	1,337.3	73.6	6

Wires Costs

Wires costs represent the amounts paid primarily to TFOs in accordance with their AUC-approved tariffs and are not controllable costs of the AESO. Wires costs in 2012 are $889.8 million, which is $110.1 million or 14 per cent higher than the 2011 costs of $779.7 million due to increases in the regulated rates charged by the TFOs. The TFO rate increases reflect capital and operating costs associated with projects providing additional transmission system capacity as well as higher costs to operate and maintain existing transmission facilities.



Operating Reserves

Operating reserves are generating capacity or load that is held in reserve and made available to the system controller to manage the Alberta electric system supply-demand balance in real time. Operating reserves are comprised of three types of active reserves, with the minimum levels of operating reserves required based on standards established by the Western Electricity Coordinating Council (WECC):

- **Regulating reserves –** The provision of generation capability, including capacity, energy and maneuverability, which respond 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 provide additional energy following an AESO system controller directive. A supplier offering spinning reserves must be able to ramp up its generator within 10 minutes in response to a system controller directive due to a system contingency.

- **Supplemental reserves –** Similar to spinning reserves except supplemental reserves are not required to respond to frequency deviations or be synchronized to the system; therefore, they include load and generators.

The AESO purchases operating reserves from the ancillary services exchange. Operating reserve prices are indexed to the hourly pool price though changes to the average pool price may not result in proportional changes to the operating reserve costs; the pool price for each hour has a significant impact on the operating reserve costs for that hour. Additionally, during periods of high hourly pool prices, the less expensive operating reserve suppliers may not be available, which results in higher operating reserve costs.

Operating reserve costs in 2012 are $320.6 million, which is $4.3 million or one per cent lower than the 2011 costs of $324.9 million primarily due to the impact of the lower hourly pool prices in 2012. The average hourly pool price is $64 per MWh in 2012 compared to $76 per MWh in 2011, representing a decrease of 16 per cent in 2012. Operating reserve volumes are 8,092 gigawatt hours (GWh) in 2012 compared to 8,067 GWh in 2011.

Transmission Line Losses

Transmission 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 based on the hourly pool price.

The costs of line losses in 2012 are $144.0 million, which is $46.4 million or 24 per cent lower than the 2011 costs of $190.4 million due primarily to the impact of lower average pool prices in 2012; a 16 per cent decrease in the average hourly pool price. Line loss volumes decreased in 2012 due to more generation in Southern Alberta with increased wind generation facilities, reinforcements and improvements to the transmission system and higher supply from imports.

Transmission Must-Run

Transmission must-run (TMR) is on-line generation that ensures reliability by reinforcing the transmission system in specific areas of the AIES. This service is typically procured through commercial contracts between the AESO and suppliers. TMR service providers are compensated through contracts using fixed and variable payments. A market participant may be directed to provide unforeseeable TMR service when the provider does not have an existing contract for the service. In these circumstances, the Independent System Operator (ISO) transmission tariff specifies the amount to be paid to the provider.

TMR costs in 2012 are $29.9 million, which is $2.9 million or nine per cent lower than the 2011 costs of $32.8 million. The volumes of contracted TMR in 2012 decreased by over 70 per cent, most notably in Northwest Alberta. Higher unforeseeable TMR costs in the Edmonton area partially offset the impact related to the lower contracted volumes. Unforeseeable TMR is required to mitigate the overloading of lines associated with line outages, system conditions in real time and the loss of generation in an area.

Other Ancillary Services Costs

Other ancillary services costs include the remaining services that the AESO procures for the secure and reliable operation of the AIES such as load shed and black start services. These services are procured through bilateral contracts with suppliers using competitive procurement processes whenever possible.

In 2012, other ancillary services costs are $26.6 million, which is $17.1 million or 180 per cent higher than the 2011 costs of $9.5 million. This increase is attributable to higher Load Shed Service for imports (LSSi) costs, a demand-response service that became operational in the latter part of 2011. LSSi is interruptible load that can be armed to trip on the loss of the British Columbia intertie. This service allows import available transfer capability (ATC) to be increased by 100 to 200 megawatts.

Other Industry Costs

Other industry costs represent fees or costs paid based on regulatory requirements and membership fees for industry organizations; the amounts and requirements for these costs are not under the direct control of the AESO. These costs relate to the annual administration fees for the AUC, the AESO's share of WECC and Northwest Power Pool (NWPP) membership fees and regulatory process costs. New in other industry costs for 2012 are the AESO's regulatory process costs for ISO Rule hearings and the AESO's costs related to AUC proceedings for regulatory applications.

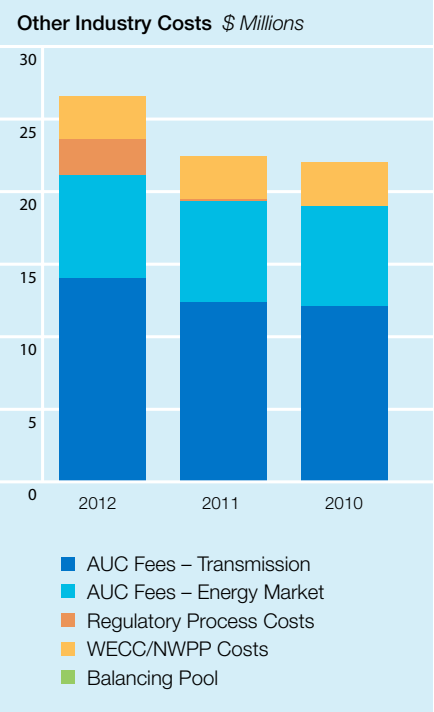
There are three categories of regulatory process costs: AESO regulatory proceedings, objections and complaints to ISO Rules, and intervener cost recovery for AESO applications.

Other industry costs in 2012 are $26.6 million, which is $4.2 million or 19 per cent higher than the 2011 costs of $22.4 million. The increase is mainly associated with higher AUC fees and regulatory process costs.

($ Millions) Years ended December 31	**2012**	2011	Change	% Change
AUC Fees – Transmission	**14.0**	12.4	1.6	13
AUC Fees – Energy Market	**7.1**	6.9	0.2	3
WECC/NWPP costs	**3.0**	2.9	0.1	3
Regulatory process costs	**2.5**	0.2	2.3	1,150
Balancing Pool	**-**	-	-	-
Other industry costs	**26.6**	22.4	4.2	19

Under the provisions 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 market participants through the AESO's energy market trading charge on a per-MWh-traded basis.

The AESO's share of the WECC membership fees has remained consistent in 2012 and 2011 at $2.8 million, payable in US dollars. Changes in the foreign currency exchange rate have resulted in a slight increase in costs in 2012.



Regulatory process costs in 2012 are $2.5 million, which is $2.3 million or 1,150 per cent higher than the 2011 costs of $0.2 million. The 2012 costs are mainly associated with regulatory proceedings of $1.4 million (most notably the competitive process, Eastern and Western Alberta transmission lines and various other transmission line proceedings) and ISO Rule objections and complaints of $0.9 million (most notably transmission congestion management (TCM) and available transfer capacity (ATC)). AUC cost awards to interveners for AESO applications are $0.2 million for 2012.

General and Administrative Costs

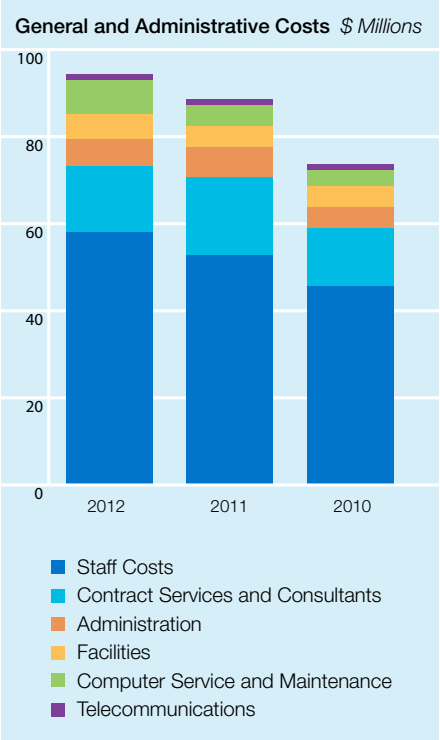
($ Millions) Years ended December 31	**2012**	2011	Change	% Change
Staff costs	**57.9**	52.6	5.3	10
Contract services and consultants	**15.3**	18.0	(2.7)	(15)
Administration	**6.3**	7.0	(0.7)	(10)
Facilities	**5.7**	4.7	1.0	21
Computer services and maintenance	**7.6**	4.9	2.7	55
Telecommunications	**1.5**	1.4	0.1	7
General and administrative costs	**94.3**	88.6	5.7	6

General and administrative costs in 2012 are $94.3 million, which is $5.7 million or six per cent higher than the 2011 costs of $88.6 million. This variance is primarily associated with increases in staff, facilities and computer services and maintenance costs.

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, and offering a competitive compensation package and a rewarding work environment.

In 2012, staff costs are $57.9 million, which is $5.3 million or 10 per cent higher than the 2011 costs of $52.6 million. The increase is attributable to a higher complement of staff, increased costs due to annual staff salary adjustments and incentive program changes and a lower vacancy rate in 2012 compared to 2011. The higher staff complement in the operations integration area enabled the AESO to effectively integrate a significant number of customer connection projects, transmission system projects and new market rules into the AESO's operations, while additional staff hired for the competitive process allowed the AESO to advance this important initiative. In addition, in 2012 the AESO focused on converting contractors and consulting resources to staff resources to benefit from lower cost resources and improved human resource management.



Contract Services and Consultants

In 2012, contract services and consultant costs are $15.3 million, which is $2.7 million or 15 per cent lower than the 2011 costs of $18.0 million. The decrease is primarily a result of:

- Converting contractors and consultants to permanent staff to benefit from lower cost resources and improved human resource management;
- Transitioning to a managed services model for IT infrastructure operating support (network, server, database and storage), which results in increased reliability, sustainability and ability to deliver changes to IT systems thereby reducing the need for consultants and contractors for IT support;
- Reducing requirements for contractors and consultants associated with various business initiatives in 2012; and
- Excluding costs for technical services required to support the AESO's regulatory, transmission project and ISO Rule proceedings, which are recorded as a part of other industry costs in 2012 to better reflect the nature of the costs.

The decrease in contract services and consultant costs is partially offset by higher costs incurred for the advancement of the competitive process initiative in 2012 and the recording of costs for system studies that were historically transferred to TFOs. To support applications, the AESO would complete system studies, and when this would occur, the historical practice was to transfer the third party costs to TFOs to be capitalized in their rate base. For 2012, the AESO discontinued this practice and the costs are now included in the AESO's general and administrative costs.

Administration

Administration costs include corporate communications, recruiting, travel and training, AESO Board fees and office costs. In 2012, administration costs are $6.3 million, which is $0.7 million or 10 per cent lower than the 2011 costs of $7.0 million. The decrease in costs is attributable to non-recurring costs related to the release of the *Long-term Transmission Plan* in 2011 and the recording of transmission hearing notice costs in other industry costs in 2012.

Facilities

In 2012, facilities costs are $5.7 million, which is $1.0 million or 21 per cent higher than the 2011 costs of $4.7 million. The increase is associated with additional office space leased in 2012 and an increase in operating costs for existing leases.

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 licenses and maintenance agreements.

In 2012, computer services and maintenance costs are $7.6 million, which is $2.7 million or 55 per cent higher than the 2011 costs of $4.9 million. In the latter part of 2011, the implementation of a new strategy for the AESO's IT infrastructure support began. Continuing into 2012, this involved the transition to a managed services model for IT infrastructure operating support (network, server, database and storage) to result in increased reliability, sustainability and ability to deliver changes to IT systems to facilitate business initiatives. In addition, annual costs increased due to requirements for software and hardware operating licenses and maintenance agreements resulting from continued growth in the AESO's capital investments.

Telecommunications

The AESO incurs costs for the support of real-time operations and the network systems and telecommunications required to support general business 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 2012, telecommunication costs are $1.5 million, which is consistent with the 2011 costs of $1.4 million.

Interest and Amortization

($ Millions) Years ended December 31	**2012**	2011	Change	% Change
Interest costs	**0.9**	2.6	(1.7)	(65)
Amortization of intangible and capital assets	**24.4**	17.5	6.9	39

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 lives of the assets (included in amortization).

In 2012, interest costs are $0.9 million, which is $1.7 million or 65 per cent lower than the 2011 costs of $2.6 million. The average borrowing requirements in 2012 are 62 per cent lower than in 2011 due to available working capital leading to the overall decrease in interest costs.

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 purchases and development costs.

In 2012, amortization of intangible and capital assets is $24.4 million, which is $6.9 million or 39 per cent higher than the 2011 amortization of $17.5 million. This increase is primarily due to $18.1 million in software additions and $12.9 million in hardware additions commissioned in 2012.

Intangible and Capital Assets

Intangible and capital asset expenditures totaled $25.4 million in 2012 compared to $28.6 million in 2011. The AESO's development and acquisition of intangible and capital assets, most significantly the 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 validating the overall financial requirement. To address these challenges, a vetting and prioritization process has been implemented and continues to be enhanced, such that intangible and capital asset expenditures achieve the most beneficial and cost-effective results, while continuing to meet operating requirements.

In 2012, the investment in intangible and capital assets of $25.4 million continued to support software development and upgrades to critical operational systems, in addition to base system application infrastructure. The AESO focused on the development of various IT tools for intertie initiatives, the development and deployment of tools to assist with the implementation of market protocols in accordance with the *Fair, Efficient and Openly Competitive* (FEOC) *Regulation* and the completion of various upgrade projects to the AESO's desktop computing workstations, database environments, servers and voice and data networks.

In 2011, intangible and capital asset expenditures of $28.6 million related primarily to the development and implementation of wind forecasting and wind power management tools, the implementation of a Load Shed Service for imports (LSSi) application and upgrades to the AESO's IT environment completed in 2012.

The AESO's net book value for intangible and capital assets totals $89.0 million in 2012 compared to $88.0 million in 2011. As of December 31, 2012, approximately 80 per cent (2011 – 80 per cent) of the net book value relates to computer infrastructure with the remaining value associated with the AESO's system coordination facility, furniture and office equipment.

Service Area Cost Detail

Allocation of Costs for Revenue Requirements

The AESO recovers its operating, intangible and capital asset costs through three separate revenue sources. Each revenue source 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 relate to 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 costs to the specific services that they support (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 costs have to one of the services. If an operating cost is directly associated with a service, the cost will be assigned directly to that service (e.g., a consultant cost in the transmission group would be assigned 100 per cent to transmission and recovered through the transmission tariff). Alternatively, if an 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 value of 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, other industry costs and intangible and capital asset costs. IT costs are allocated based on an activity-based analysis to reflect the nature of the underlying costs. Rent costs are allocated based on the staff associated with the three services. Other industry costs are allocated based on the specific regulatory proceeding or the administration or membership fee. Intangible and capital asset 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 or operating activities that will be supported by the systems (hardware and software).

Allocation and Cost Classifications

		AESO Services (%)		
Cost Categories	General Classification	Transmission	Energy Market	Load Settlement
Wires	Operating	100	-	-
Operating reserves	Operating	100	-	-
Transmission line losses	Operating	100	-	-
Transmission must-run	Operating	100	-	-
Other ancillary services	Operating	100	-	-
Other industry	Non-operating	Costs allocated based on established methodology		
General and administrative	Non-operating	Costs allocated based on established methodology		
Interest	Non-operating	Costs allocated based on established methodology		
Amortization of intangible/capital assets	Non-operating	Costs allocated based on established methodology		

($ Millions) Years ended December 31		Trans-mission	Energy Market	Load Settlement	Total
Other industry costs	**2012**	**18.6**	**8.0**	**0.0**	**26.6**
	2011	15.5	6.9	0.0	22.4
General and administrative	**2012**	**68.8**	**24.1**	**1.4**	**94.3**
	2011	66.3	20.6	1.7	88.6
Interest	**2012**	**(0.5)**	**1.3**	**0.1**	**0.9**
	2011	1.7	0.8	0.1	2.6
Amortization	**2012**	**13.3**	**9.0**	**2.1**	**24.4**
	2011	9.0	6.6	1.9	17.5
Total	**2012**	**100.2**	**42.4**	**3.6**	**146.2**
	2011	92.5	34.9	3.7	131.1

Other Industry Costs

The allocation of other industry costs is consistent in 2012 and 2011.

General and Administrative

The results of the allocation of general and administrative costs between the three services is based on a detailed allocation methodology, which produces a slightly higher percentage of overall general and administrative costs allocated to the energy market service in 2012 compared to 2011. This increase is primarily the result of an adjustment to reflect the operating activities for IT-related costs in 2012.

Amortization

The allocation of the 2012 commissioned assets produces a slightly higher percentage of overall amortization allocated to the transmission service. During 2012, numerous capital projects were commissioned that support the AESO's corporate computing environment, including workstations, databases, servers, voice and data networks, backup and security infrastructure. The amortization cost related to these capital projects is allocated based on the established methodology for corporate services costs, which is more heavily weighted towards the transmission service based on its higher direct costs.

Interest

The allocation of interest costs is impacted by excess funds and the net book value of the intangible and capital assets relating to the three services. The amount of excess funds that are available to offset the amount of required debt financing for the net book value of the assets is primarily related to deferral account balances, as well as generating unit owner's contribution deposits, which are associated with the transmission tariff requirements.

In 2012, the excess funds relating to the transmission service exceed the net book value of its assets, resulting in imputed interest income to the transmission service.

Total Revenues

The *Electric Utilities Act* (EUA) requires that the AESO operates so that 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 with an offsetting deferred asset or liability. The AESO's three revenue sources are transmission, energy market and load settlement.

Total Revenue

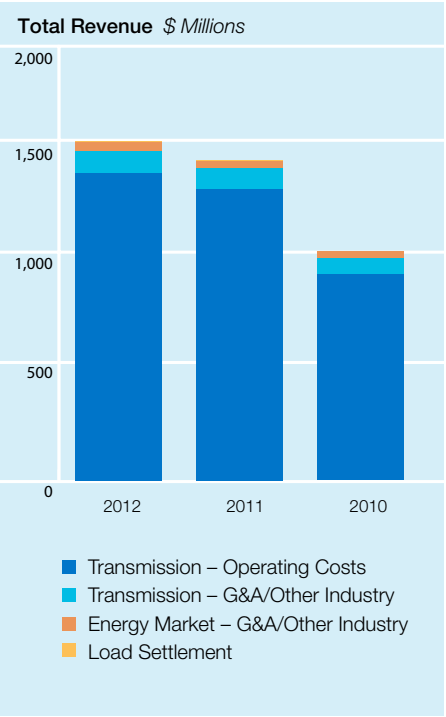
($ Millions) Years ended December 31	**2012**	2011	Change	% Change
Revenue collections				
Transmission	**1,530.8**	1,451.5	79.3	5
Energy market	**40.5**	36.0	4.5	13
Load settlement	**3.3**	3.9	(0.6)	(15)
Total revenue collections	**1,574.6**	1,491.4	83.2	6
(Deferred revenue) / revenue				
Transmission	**(19.7)**	(21.6)	1.9	(9)
Energy market	**2.0**	(1.1)	3.1	(282)
Load settlement	**0.2**	(0.3)	0.5	(167)
Total (deferred revenue) / revenue	**(17.5)**	(23.0)	5.5	(24)
Total revenue	**1,557.1**	1,468.4	88.7	6

Transmission

The AESO is responsible for paying all of the costs incurred in 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 market participants 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 recorded as deferred revenue, recognized as a deferred liability and refunded to market participants in future periods. In circumstances where collections are less than the transmission costs, the shortfall is recorded as revenue, recognized as a deferred asset and collected from market participants in future periods.

Transmission Deferral Summary

($ Millions) Years ended December 31	**2012**	2011
Collections	**1,530.8**	1,451.5
Costs	**1,511.1**	1,429.9
Transmission deferred revenue	**(19.7)**	(21.6)
Deferral account (payable) receivable, beginning of year	**(10.6)**	11.0
Deferral account payable, end of year	**(30.3)**	(10.6)

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 market participants. For transmission line losses, Rate Rider E is a prospective adjustment for the reconciliation of deferral account balances.

In March 2012, the AUC established a process to temporarily prevent rate increases for transmission and distribution service and rate riders typically established to collect deferred balances. This process impacted the AESO's Rate Rider C tariff rates that would have been in place for the remainder of 2012 and contributed to the net over-collection of 2012 transmission costs. On January 29, 2013 the AUC began the process to remove the rate increase limitations in effect since March 2012.

The transmission deferral account balance changed from a payable of $10.6 million to market participants at December 31, 2011 to a payable of $30.3 million to market participants at December 31, 2012. The change of $19.7 million during 2012 is the result of transmission collections exceeding costs due to the inability to adjust Rate Rider C collections throughout 2012 and lower-than-anticipated transmission operating costs.

Energy Market

The AESO recovers the costs of operating the real-time energy market through an energy market trading charge on all MWh traded. The energy market trading charge is set to recover the operating costs, the amortization of intangible and capital assets and the AUC administration fee during the period.

For 2012, the AESO's component of the energy market trading charge is 33.4 cents per MWh to cover operating, intangible and capital asset costs (27.7 cents per MWh) and the AUC administrative fee (5.7 cents per MWh). For 2011, the AESO's component of the energy market trading charge was 29.6 cents per MWh to cover

operating, intangible and capital asset costs (23.7 cents per MWh) and the AUC administrative fee (5.9 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 the AESO's operations.

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

In circumstances where collections are in excess of energy market costs, the excess amount is recorded as deferred revenue, recognized as a deferred liability and incorporated into a reduction in the following year's energy market trading charge. In circumstances where collections are less than the energy market costs, the shortfall is recorded as revenue, recognized as a deferred asset 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	**2012**	2011
Collections	**40.5**	36.0
Costs	**42.4**	34.9
Energy market revenue (deferred revenue)	**1.9**	(1.1)
Deferral account receivable, beginning of year	**1.4**	2.5
Deferral account receivable, end of year	**3.3**	1.4

The energy market deferral account at December 31, 2012 is a $3.3 million receivable compared to a $1.4 million receivable at the end of 2011. The change of $1.9 million during 2012 is the result of energy market costs exceeding collections due to the portion of general and administrative costs allocated to the energy market.

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 the 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 asset costs.

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	**2012**	2011
Collections	**3.3**	3.9
Costs	**3.5**	3.6
Load settlement revenue (deferred revenue)	**0.2**	(0.3)
Deferral account payable, beginning of year	**(0.8)**	(0.5)
Deferral account payable, end of year	**(0.6)**	(0.8)

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 2012, the MSA's portion of the total energy market trading charge is 2.7 cents per MWh compared to 2.3 cents per MWh in 2011.

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 in a separate deferral account. At the end of 2012, the MSA payments exceeded the MSA collections, resulting in a deferral account receivable of $0.3 million.

Financial Position and Liquidity

($ Millions) Years ended December 31	**2012**	2011
Cash, beginning of year	**18.7**	47.5
Operating activities	**117.1**	12.0
Investing activities	**(25.4)**	(28.6)
Financing activities	**(24.6)**	(12.2)
Cash, end of year	**85.8**	18.7

The cash balance as at December 31, 2012 is $85.8 million compared to $18.7 million at December 31, 2011. The increase is primarily the result of the following:

- **Operating activities** provided cash of $117.1 million in 2012 (2011 – $12.0 million).

  The increase is mainly attributable to cash provided by non-cash working capital of $92.7 million (2011 – used cash of $5.5 million).

  - Accounts receivable at December 31, 2012 is $271.7 million compared to $114.3 million at December 31, 2011, an increase of $157.4 million. Based on the number of business days in December 2012, the

cash settlement for the month of November occurred on January 2, 2013. As a result, the accounts receivable balance at the end of 2012 includes two months of accruals as opposed to one month in 2011 for the transmission settlement and the energy market trading charge.

- Accounts payable at December 31, 2012 is $407.5 million compared to $143.9 million at December 31, 2011, an increase of $263.6 million. Similar to accounts receivable, the accounts payable balance at the end of 2012 includes two months of transmission settlement accruals, for the months of November and December. In addition, the AESO received early payment on $71.3 million of energy market settlement funds for the January 2, 2013 cash settlement.
- Market participants' security deposits balance at December 31, 2012 is $2.7 million compared to $14.5 million at December 31, 2011, a decrease of $11.8 million. The balance of security deposits held by the AESO is dependent on how market participants meet the AESO's security requirements.

In addition, the recovery of intangible and capital asset costs through amortization of these assets provided cash of $24.4 million (2011 – $17.5 million).

- **Investing activities** used cash of $25.4 million in 2012 (2011 – $28.6 million) for the purchase of intangible and capital assets.
- **Financing activities** used cash of $24.6 million in 2012 (2011 – $12.2 million). The primary financing activities are a decrease in bank debt of $41.6 million offset by an increase in the deferral accounts payable balance of $17.5 million in 2012.

As at December 31, 2012, the AESO had the following credit facilities available to fund general operating and intangible and capital asset purchasing activities:

($ Millions) Year ended December 31, 2012	Total	Available	**Used**
Demand revolving facility	160.0	136.8	**23.2**
Demand treasury risk management facility	9.0	9.0	**-**

The demand facility includes a $10.0 million letter of credit at December 31, 2012 and 2011, 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 2013, the AESO has established a revenue requirement of $1,573.7 million through the 2013 Budget Review Process for costs related to wires, ancillary services, transmission line losses, other industry, general and administrative, amortization and interest. The total transmission revenue requirement in 2013 is $62.6 million or four per cent higher than the 2012 actual costs of $1,511.1 million. This forecast increase results from increases in wires costs offset by decreases in ancillary services costs.

For energy market-related activities, the annual costs are forecast to decrease to $40.3 million in 2013 from the 2012 actual costs of $42.4 million, a $2.1 million or five per cent decrease. This forecast decrease results from

decreases in general and administrative costs, most notably related to consultant resources and IT maintenance. With the combination of this forecast cost decrease and the 2012 deferral account balance, the AESO's portion of the 2013 energy market trading charge will decrease to 25.9 cents per MWh in 2013 compared to 27.7 cents per MWh in 2012, a decrease of 1.8 cents per MWh. In 2013, the total energy market trading charge, which also includes components for funding the AUC and MSA, will be 33.9 cents per MWh compared to 36.1 cents per MWh in 2012.

Timely approval and implementation of proposed transmission upgrades remain as priorities for the AESO to maintain reliable operations and to enable the reliable integration of new load and generation connections. The levels of constraints will depend on unplanned outages as well as the coordination of planned transmission and generator outages. With increasing loads and generation requests in the queue, the level of congestion on the system may increase for a short period of time until more transmission builds are complete, particularly in the Keephills-Ellerslie-Genesee, southwest and northeast areas. In the operation of the system, some constraints may be unavoidable; however, the AESO will plan and coordinate to minimize this risk.

The AIES supply margins appear adequate during the next two years. Market forces continue to govern generation development in accordance with expected load growth as evidenced by the volume of generation queuing to arrange for connection to the system. In 2013, the integration of the Montana-Alberta Tie Line, the first new interconnection to another jurisdiction in many years, will occur. The AESO will continue to focus on rules, procedures and system analysis along with continued emphasis on training and information technology development to equip the AESO's system controllers to manage the reliability of the AIES.

The AESO, in support of a sustainable, energy-only market design in Alberta, continues to focus on the development and implementation of enhancements to the market rules. In 2013, this includes wind and other new technology integration, interties, demand response, transmission system access and continued analysis of recommendations from the 2010 independent review of the sustainability of the Alberta market design. This independent review will also be refreshed in 2013. Many of these projects will require capital investment for new computer systems and applications. The need for replacement of the existing market IT systems will be assessed in 2013. If this assessment indicates the need for new systems or major upgrades, implementation would begin no later than 2014.

Preparation of the updated *Long-term Transmission Plan*, which is scheduled to be filed with the AUC at the end of 2013, is ongoing. The AESO continues to refine its processes with respect to load and generation forecasting, and continues to enhance its transmission system studies and scenario planning development. Consultation on the *Long-term Transmission Plan* will continue with stakeholders throughout the year.

The Government of Alberta continues to focus on a comprehensive plan for Alberta's energy future and part of the vision for electricity includes substantial upgrades to the transmission system. Amendments to the *Transmission Regulation* in 2010 mandated the AESO to develop and implement a competitive process for certain transmission facilities. In that same year, the government also created the Transmission Facilities Cost Monitoring Committee (TFCMC) to facilitate increased transparency and monitoring of TFO costs for large transmission projects prior to rate hearings.

The AESO is currently developing a competitive process as the method to determine the party who is eligible to apply for the construction and operation of certain transmission facilities. The first transmission infrastructure to which the competitive process will apply is a single-circuit 500 kilovolt (kV) alternating current transmission facility from the Edmonton region to the Fort McMurray region; the Fort McMurray West Transmission Project.

In 2011, the AESO filed an application with the AUC seeking regulatory approval for the competitive process, and in late 2012, the regulatory proceeding concluded. Throughout 2012, the AESO continued to further develop the tendering and commercial documents in respect of the process and, upon receiving a decision from the AUC on the competitive process application in 2013, the AESO intends to commence its first competition.

Since 2010, there continues to be considerable advancements to implement the Ministerial Order with respect to cost monitoring with the TFCMC's monthly reviews of the records that relate to the cost, scope and schedule of Alberta's transmission facility projects, which are expected to cost more than $100 million. The TFCMC is comprised of 13 individually appointed members from various groups, of which the AESO is one, and includes two independent government-appointed members. The AESO has assisted in this initiative through the development of cost monitoring and reporting processes to support the efforts of the TFCMC. These efforts included the creation of a benchmarking database of project information from Alberta and other jurisdictions to use to evaluate transmission project costs within Alberta. In 2012, the AESO focused on implementing the recommendations identified in the Transmission Cost Accountability initiative, which included:

- coordinating project cost reporting with the AUC;
- working with the TFCMC in monitoring major transmission projects;
- enhancing cost estimate quality and reporting; and
- initiating changes to ISO Rule Section 9.1 *Transmission Facility Projects* which describes the obligations of the TFO in carrying out transmission projects.

In 2013, the AESO will continue to enhance its monitoring and reporting within the current legislative framework. The AESO has formed an industry workgroup to consult on proposed changes to ISO Rule Section 9.1 with an objective to file a final rule with the AUC during 2013.

International Financial Reporting Standards

Canadian GAAP for publicly accountable entities has been replaced with International Financial Reporting Standards (IFRS) effective January 1, 2011. In September 2012, the Canadian Accounting Standards Board (AcSB) extended the existing deferral of the mandatory IFRS changeover date for entities with qualifying rate-regulated activities to January 1, 2014. This deferral is limited to entities that have activities subject to cost-based regulation and that recognize regulatory assets and regulatory liabilities. This deferral resulted from the AcSB's recognition that the IFRS currently do not provide specific guidance on rate-regulated activities.

Following discussions with the AESO's advisory public accounting firm and the Audit Committee, the AESO anticipates a transition to IFRS, effective January 1, 2014. The adoption of these standards will have an impact on the presentation of the AESO's results of operations, financial position, cash flows and accompanying notes. The Audit Committee and the AESO Board are provided with regular updates.

Risk Management

The AESO is exposed to various risks in the normal course of business, many of which are similar to risks faced by other companies including independent electric system operators and wholesale market facilitators.

The risk management processes that the AESO has developed are designed to identify the risks confronting the AESO, to assess the impact and likelihood of those risks occurring and to determine mitigation strategies to be taken. AESO Management is responsible for the ongoing operations of the organization including its risk management programs.

While many of the risks identified 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. Risk management is a key element of organizational governance and is characterized by a philosophy of continuous improvement. The key features of the AESO's governance and internal control environment, which facilitate the AESO's risk management processes, are as follows:

- The AESO is governed by Members of the AESO (Members) who are individuals appointed by the Alberta Minister of Energy. The Members function as a board of directors (AESO Board). Each Member acts in the public interest. In addition, the AESO Board collectively acts in the public interest and independently from any person or entity having a material interest in the Alberta 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 in a position to comply with this legislation once proclaimed, including the execution of a document describing relevant roles and mandates of both the AESO and the Ministry of Energy.

- AESO policies are developed and approved by the AESO Board or the President and Chief Executive Officer as delegated by the AESO Board. AESO policies are communicated to employees and, as appropriate, to contractors and are accessible by employees at all times.

- The AESO is committed to maintaining a high level of ethics and integrity. The AESO Board and AESO Management foster these values throughout the organization and maintain an effective whistleblower policy. 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 agree to when hired, review at least annually to confirm compliance/non-compliance, and affirm their agreement to abide by the policy. Contractors of the AESO have similar requirements, as appropriate, given the nature of their work for the AESO. Each Member of the AESO Board is bound by the AESO Members' Code of Conduct and similarly provides an annual confirmation of their compliance/non-compliance.

- AESO 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. Accordingly, they may not prevent or detect all misstatements.

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

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, AESO Management concludes that, as of December 31, 2012, the AESO maintains effective internal controls over financial reporting.

- 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 adopt best practices, as appropriate.
- The AESO's controls and audit services function provides the AESO with an objective and independent assessment of internal controls, coordinating and reporting on risk management activities and identifying opportunities for operational improvements.
- Risk assessment is a continuous process. The AESO is committed to proactively identifying and addressing potential risks as well as implementing appropriate mitigation strategies.
- AESO Management reports significant risks to the AESO Board and the Audit Committee on a regular basis and provides updates on the implementation of mitigation strategies that are undertaken.
- The AESO, its Members, officers, employees and contractors are extended a degree of statutory liability protection consistent with the AESO's public interest mandate.
- The AESO carries insurance coverage that is reviewed and approved as appropriate by the AESO Board, through the Audit Committee. 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

Financial Statements and Notes

Management's Responsibility for Financial Reporting

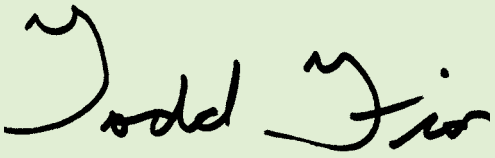
The financial statements of the Alberta Electric System Operator (AESO) are the responsibility of management and have been approved by the AESO Board. These financial statements have been prepared by management in accordance with Canadian generally accepted accounting principles, and include the use 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 complying with 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 recommend the approval of the financial statements.

The financial statements have been examined by Ernst & Young 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

Independent Auditors' Report

To the Members of the Alberta Electric System Operator Board

We have audited the accompanying financial statements of the Alberta Electric System Operator (AESO) which comprise the balance sheets as at December 31, 2012 and 2011 and the statements of operations and comprehensive income and cash flows for the years then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian generally accepted accounting principles, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

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 comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Alberta Electric System Operator as at December 31, 2012 and 2011 and the results of its operations and its cash flows for the years then ended in accordance with Canadian generally accepted accounting principles.

Ernst & Young LLP

Chartered Accountants
Calgary, Canada

February 12, 2013

Balance Sheets

As at December 31 (in thousands of Canadian dollars)	2012	2011
Assets		
Current assets		
Cash	**$ 85,760**	$ 18,656
Accounts receivable *(note 4)*	**271,719**	114,274
Prepaid expenses and deposits	**4,809**	3,158
MSA deferral account receivable	**312**	86
	362,600	136,174
Intangible assets, net *(note 5)*	**57,080**	54,796
Capital assets, net *(note 6)*	**31,884**	33,206
	$ 451,564	$ 224,176
Liabilities		
Current liabilities		
Accounts payable and accrued liabilities *(note 7)*	**$ 407,481**	$ 143,943
Security deposits *(note 14)*	**2,714**	14,500
Bank debt *(note 9)*	**13,200**	54,800
AESO deferral accounts payable *(notes 3 and 8)*	**27,556**	10,023
	450,951	223,266
Deferred rent	**613**	910
Equity *(note 1)*	**-**	-
	$ 451,564	$ 224,176
Asset retirement obligation *(note 11)*		
Contingencies and commitments *(note 12)*		

See accompanying notes.

Statements of Operations and Comprehensive Income

For the year ended December 31 (in thousands of Canadian dollars)	**2012**	2011
Revenue		
Transmission tariff	**$ 1,509,872**	$ 1,427,753
Energy market charge	**42,132**	34,668
Load settlement charge	**3,515**	3,582
Interest and other	**1,580**	2,448
	1,557,099	1,468,451
Operating costs and expenses		
Wires costs	**889,790**	779,706
Ancillary services costs	**377,165**	367,243
Transmission line losses	**143,978**	190,454
General and administrative	**94,264**	88,565
Other industry costs	**26,602**	22,376
Amortization *(notes 5 and 6)*	**24,439**	17,470
Interest expense *(note 9)*	**861**	2,637
	1,557,099	1,468,451
Net income and comprehensive income	**$ -**	$ -

See accompanying notes.

Statements of Cash Flows

For the year ended December 31 (in thousands of Canadian dollars)		**2012**		2011
Operating activities				
Net income	**$**	**-**	$	-
Amortization		**24,439**		17,470
Net change in non-cash working capital items related to operating activities*		**92,656**		(5,494)
Net cash provided by operating activities		**117,095**		11,976
Investing activities				
Intangible asset additions		**(19,149)**		(19,932)
Capital asset additions		**(6,252)**		(8,649)
Net cash used in investing activities		**(25,401)**		(28,581)
Financing activities				
Decrease in bank debt		**(41,600)**		(35,000)
Increase in AESO deferral accounts		**17,533**		22,990
Decrease in deferred rent		**(297)**		(205)
Decrease in MSA deferral account		**(226)**		(27)
Net cash used in financing activities		**(24,590)**		(12,242)
Increase (decrease) in cash		**67,104**		(28,847)
Cash, beginning of year		**18,656**		47,503
Cash, end of year	**$**	**85,760**	$	18,656
Cash interest paid	**$**	**861**	$	2,637

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

See accompanying notes.

December 31, 2012 and 2011

(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 operating and promoting a fair, efficient and openly competitive energy-only market for electricity; 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 Members of the AESO (Members) who are individuals appointed by the Alberta Minister of Energy. The Members function as a board of directors (AESO Board). Each Member acts in the public interest. In addition, the AESO Board collectively acts in the public interest and independently from any person or entity having a material interest in the electricity industry. The AESO Board has three committees and one task force: Audit Committee; Human Resources, Compensation and Nominations Committee; Corporate Governance Committee; and Transmission Advisory Task Force.

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 Alberta Utilities Commission (AUC or Regulator) and approved based upon the AESO's tariff applications.

2. Summary of Significant Accounting Policies

These financial statements have been prepared by management in accordance with Canadian generally accepted accounting principles (GAAP) as set out in Part V of the Canadian Institute of Chartered Accountants (CICA) Handbook.

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 intangible assets, capital assets, accrued liabilities, settlement of an asset retirement obligation and regulatory decisions. Any changes from current estimates or assumptions are accounted for in the period that they are determined.

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 Market Surveillance Administrator (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.

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 recorded as deferred revenue, recognized as a deferred liability and refunded in the subsequent year. In circumstances where annual collections are less than the costs, the shortfall is recorded as revenue, recognized as a deferred asset and collected in the subsequent year.

A portion of the energy market charge collected by the AESO is remitted to the 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 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 lives as follows:

Software development	5 to 7 years; or Over the term of the license agreement for customization of Software as a Service
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 lives as follows:

Computer hardware, furniture and office equipment	3 years
System coordination computer systems	7 years
System coordination facility	Over the land lease term ending in 2025
Leasehold improvements	Over the applicable lease terms ending in 2014 and 2024

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 set-up and installation are capitalized.

DEFERRED RENT › The AESO recognizes the benefit of rent-free periods by aggregating the total lease payments over the lease term and allocating the total lease payments on a straight-line basis over the term of the lease.

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 receivables and v) 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 ›

Canadian Generally Accepted Accounting Principles

The AESO will cease to prepare its financial statements in accordance with Canadian GAAP as set out in Part V of the CICA Handbook – Accounting for the periods beginning on January 1, 2014 when it will start to apply, on a retrospective basis, International Financial Reporting Standards (IFRS) as published by the International Accounting Standards Board. There are no recently adopted accounting changes to Canadian GAAP, as the focus for changes in accounting standards has shifted to IFRS.

RECENT ACCOUNTING PRONOUNCEMENTS NOT YET ADOPTED ›

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 IFRS as promulgated by the AcSB. In September 2012 the AcSB extended the existing deferral of the mandatory IFRS changeover date for entities with qualifying rate-regulated activities to January 1, 2014. This deferral applies only to entities subject to cost-based regulation. This deferral resulted from the AcSB's recognition that the IFRS currently do not provide specific guidance on rate-regulated activities.

As the AESO is not a publicly accountable entity, there is no requirement to transition to IFRS; however, the AESO anticipates a transition to IFRS, effective January 1, 2014, with a January 1, 2013 transition date. The adoption of these standards will have an impact on the presentation of the AESO's results of operations, financial position, cash flows and accompanying notes.

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 market participants 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 market participants as a result of the rate-setting process.

As of December 31,	**2012**	2011
Regulatory liabilities		
Transmission deferral	**$ 30,236**	$ 10,548

At December 31, 2012, the transmission deferral liability was $30.2 million based upon an accumulation of variances between transmission revenue collections and costs incurred in 2012 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, market participants 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 payable on the balance sheet at December 31, 2012 (note 8).

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,	**2012**	2011
Transmission settlement	**$ 261,177**	$ 106,848
Energy market settlement	**7,777**	3,382
Trade	**2,765**	4,044
	$ 271,719	$ 114,274

5. Intangible Assets

	Cost	Accumulated Amortization	**2012 Net Book Value**
Software development	$ 79,232	$ 41,609	**$ 37,623**
System coordination computer systems	19,018	8,034	**10,984**
Work in progress	8,473	-	**8,473**
	$ 106,723	$ 49,643	**$ 57,080**

	Cost	Accumulated Amortization	2011 Net Book Value
Software development	$ 63,175	$ 29,674	$ 33,501
System coordination computer systems	18,855	5,187	13,668
Work in progress	7,627	-	7,627
	$ 89,657	$ 34,861	$ 54,796

Work in progress relates to intangible assets associated with various software development projects that were not commissioned or operational by the end of the year.

For the 12 months ended December 31, 2012, $4.1 million of payroll and payroll-related costs associated with staff directly involved in software development have been capitalized (2011 – $2.9 million) and no interest costs were capitalized in 2012 (2011 – nil).

6. Capital Assets

	Cost	Accumulated Amortization	**2012 Net Book Value**
System coordination facility	$ 22,297	$ 7,433	**$ 14,864**
Computer hardware, furniture and office equipment	20,465	8,584	**11,881**
System coordination computer systems	2,997	1,252	**1,745**
Leasehold improvements	5,557	3,428	**2,129**
Work in progress	1,265	-	**1,265**
	$ 52,581	$ 20,697	**$ 31,884**

	Cost	Accumulated Amortization	2011 Net Book Value
System coordination facility	$ 22,289	$ 6,252	$ 16,037
Computer hardware, furniture and office equipment	9,293	5,057	4,236
System coordination computer systems	2,997	797	2,200
Leasehold improvements	4,558	2,801	1,757
Work in progress	8,976	-	8,976
	$ 48,113	$ 14,907	$ 33,206

Work in progress relates to capital assets associated with hardware that were not commissioned or operational by the end of the year.

For the 12 months ended December 31, 2012, $0.2 million of payroll and payroll-related costs associated with staff directly involved in hardware set-up and installation have been capitalized (2011 – $0.2 million) and no interest costs were capitalized in 2012 (2011 – nil).

7. Accounts Payable and Accrued Liabilities

As of December 31,	**2012**	2011
Transmission settlement	**$ 272,542**	$ 93,970
Energy market settlement	**71,259**	-
Trade	**54,212**	42,563
Accrued liabilities	**9,468**	7,410
	$ 407,481	$ 143,943

8. AESO Deferral Accounts (Payable) Receivable

	Transmission	Energy Market	Load Settlement	Total
Opening balance, January 1, 2011	$ 11,038	$ 2,472	$ (543)	$ 12,967
2011 Operations	(21,586)	(1,104)	(300)	(22,990)
Closing balance, December 31, 2011	(10,548)	1,368	(843)	(10,023)
2012 Operations	(19,688)	1,953	202	(17,533)
Closing balance, December 31, 2012	**$ (30,236)**	**$ 3,321**	**$ (641)**	**$ (27,556)**

9. Credit Facilities

The AESO has credit facilities of $160.0 million in unsecured 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 under the credit facilities.

In addition to the credit 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 2012 and 2011.

At December 31, 2012, $13.2 million (2011 – $54.8 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 2012 was $0.9 million (2011 – $2.6 million) at an average interest rate of 1.2 per cent (2011 – 1.1 per cent).

10. 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 asset 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 except as described in note 1.

As of December 31,	**2012**	2011
Bank debt	**$ 13,200**	$ 54,800

11. Asset Retirement Obligation

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.

12. 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)*
2013	7.7
2014	5.0
2015	6.0
2016	6.1
2017	6.1
Thereafter	49.1

(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 2012, $3.5 million was paid to the MSA (2011 – $2.8 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 2012, $21.1 million was paid to the AUC (2011 – $19.3 million).

13. 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 $3.8 million in 2012 (2011 – $3.4 million).

14. Security Deposits

Security requirements for market participant financial obligations in excess of their unsecured credit limits are met with cash deposits and letters of credit. All market participants 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 or AUC rulings. The unsecured credit granted by the AESO to an organization is limited based on the AESO's assessment of the organization's credit worthiness.

15. Financial Instruments

Financial Instrument	Designated Category	Measurement Basis	Associated Risks	Fair Value at December 31, 2012
Cash	Held for trading	Fair value	Liquidity risk	Carrying value approximates fair value due to short-term nature
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 AESO deferral accounts 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 Market 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 its 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 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, 2012 and 2011, the amount of financial assets that were past due was not material and there were no material 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 less than 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 credit facilities 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 credit facilities.

Summarized Quantitative Data Associated with the Above Risks

a) **CREDIT RISK ›** At December 31, 2012, the AESO's maximum exposure to receivable credit risk was $271.7 million (2011 – $114.3 million), which is the aggregate of 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, 2012, the amount of financial assets that were past due was not material (2011 – not material).

b) **MARKET RISK ›** The AESO is exposed to currency risk on $0.4 million (2011 – $0.5 million) of U.S. dollar denominated financial liabilities at December 31, 2012.

   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 (2011 – less than $0.1 million) and intangible asset costs would decrease (increase) by less than $0.1 million (2011 – 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.

aeso
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