TransAlta™

essential.
engaged.
evolving.

Report on Sustainability 2012

sustainability at TransAlta

TransAlta is Canada's largest publicly traded generator and marketer of electricity and renewable power. Sustainability is the context for our actions and lives deep within our culture. This report is a companion to our 2012 Annual Report and provides a deeper understanding of how we consider environmental, social and economic factors in all that we do.

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Kananaskis Country, in Alberta, Canada. TransAlta's path began here with our very first hydroelectric facility, Horseshoe, built in 1909. Our path continues today, over 100 years later.

TransAlta in 2012

Five fuels. One focus. Delivering responsible, reliable and competitive electricity to customers while delivering financial returns to shareholders.

Essential. Engaged. Evolving.

At TransAlta, we produce electricity to meet the **essential** power needs in the regions we serve. We are experts in our industry and are **engaged** in meeting the needs of our customers, creating value for our shareholders and upholding the standards of a responsible operator in the communities where we live and work. We have grown our business to meet the **evolving** power needs of our customers and the economies we integrate with.

Our energy portfolio delivers reliable, competitively-priced electricity from a fuel mix that includes coal, natural gas, wind, hydro and geothermal sources. We are Canada's largest publicly traded generator and marketer of electricity and renewable power. We are also Canada's largest generator of wind power. We operate one of North America's most advanced coal facilities and we are pursuing top-quartile performance across our integrated and diversified generation base.

In 2012, we continued to grow the company, enhanced the efficiency of our operating fleet and streamlined TransAlta's corporate structure. In Canada, we contributed to discussions that resulted in a more flexible path forward concerning greenhouse gas emissions rules applying to coal-fired generating facilities and their end-of-life.

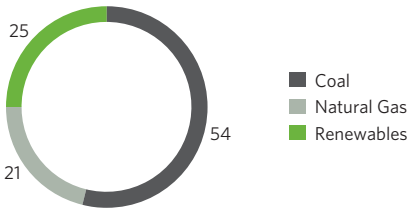
We also continued to share important findings on carbon capture and storage, made steady progress reclaiming former mine and facility sites, and clearly demonstrated leadership in industry, public policy and community service.

TransAlta's newest wind facility, New Richmond, brings our total wind capacity to over 1,100 MW.

25% renewables

capacity (MW) in TransAlta's portfolio

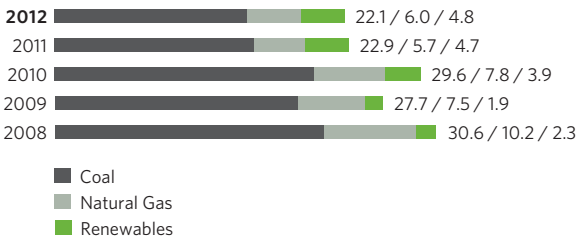
Net ownership capacity (%)



Annual electricity production (GWh)

The above chart reflects TransAlta's corporate-wide generation, including plants we do not operate but in which we have financial ownership. The rest of this report provides data on only those facilities we operate. The 2012 generation associated with our operated facilities was 32,832 GWh. This number is the basis of emissions intensity calculations.

Generation by type (million MWh)



sustainability targets

We are evolving our framework for measuring our sustainability performance with a variety of added targets across the environment, social and economic spheres.

Focus	Details	Date	2013 Actions
Environment			
Environmental Incidents	**Minimize fleet-wide incidents and their impact to the environment.**	**ongoing**	**Continue to demonstrate environmental leadership by keeping incidents below 22.**
Mercury Optimization	Develop and implement a mercury optimization plan for Alberta Coal operations for increasing mercury capture rate from 70% to 80%.	2013	In expectation of Alberta Environment and Sustainable Resource Development requirements, we will implement our optimization plan to capture 80% of produced mercury.
Reclamation	Complete Whitewood Mine reclamation.	2013	Transition into monitoring phase and certification.
	Highvale Mine ongoing reclamation activities.	2013	Complete sub soil area reclamation.
By-Products	Increase revenue opportunities from coal combustion by-product recycling sales.	2013	Recycle a minimum of 575,000 tonnes of by-product material.
Waste Reduction & Energy Reduction	Recycle 80-90% of information technology (IT) waste generated at head office.	2013	Donate used TransAlta IT equipment to local schools.
	Reduce paper usage at head office and Alberta Coal operations by 15%.	2014	Roll out "Follow You" printing system at head office and Alberta Coal sites.
	Reduce energy consumption at fleet-wide IT data centers.	2014	Develop a baseline for energy consumption at the head office data centre.
Reduce Avian Mortality	Continue work to reduce avian mortality at our wind operations across Canada with implementation of fleet-wide avian outage protection program.	2018	Launch pilot program through the installation of bird protecting insulating devices at one of our wind facilities.
Social			
Safety	**Further minimize fleet-wide incidents.**	**ongoing**	**Continue to achieve top quartile safety performance with a combined IFR below 1.0.**
Stakeholder Engagement	**Continue to develop and foster strong stakeholder relationships.**	**ongoing**	**Develop a best in class stakeholder engagement framework for major greenfield projects.**
TransAlta Culture	**Have all employees exhibiting TransAlta key attributes of: drive for results, leadership, strategic thinking, professional excellence, and continuous development.**	**ongoing**	• **Roll out the five key attributes for all out of scope employees.** • **Top 100 senior leaders are trained and exhibiting the attributes by end of 2013.**
	Minimize voluntary employee turnover.	**ongoing**	**Maintain a voluntary turnover percentage under 8%.**
	Facilitate and encourage learning opportunities for all TransAlta employees.	**ongoing**	**Achieve 80% adoption of new system for employee development plans.**
	Encourage, facilitate and track employee volunteerism.	**2013**	**Increase employee participation in company sponsored volunteering activities by 2%.**
	Maintain top compliance practices and processes.	**ongoing**	**Continue to enhance TransAlta's compliance program.**
Community Investment	Continue to work with communities in which we operate to align giving programs with identified need.	ongoing	• Approval of five-year plan (2014 start). • Develop a "giving ROI scorecard" to assist in measuring effectiveness.

23 focused targets

demonstrate our efforts toward continuous improvement

Focus	Details	Date	2013 Actions
Social (continued)			
Aboriginal Relations	Improve our Aboriginal engagement and relationships by achieving at least Silver-Level accreditation with the Canadian Council for Aboriginal Business (CCAB).	2015	Complete the second year of our verification with the CCAB Progressive Aboriginal Relations program.
Environmental Management System (EMS)	Achieve ISO 14001 Certification on 100% of our EMS systems corporate-wide.	2016	Transition the existing EMS platform to SharePoint.
Productivity	Increase company productivity.	ongoing	Capture productivity gains which offset inflation.
Economic			
Investment Grade Rating	**Maintain our Investment Grade rating.**	**ongoing**	**Maintain our Investment Grade rating through 2013.**
Shareholder Returns	**Grow shareholder return and increase focus on Funds from Operations (FFO).**	**ongoing**	• **Deliver Total Shareholder Return of 8-10%/year.** • **Deliver $800-$900 million in FFO.**
Customers	**Work with customers to establish new products and services that meet their needs and support the growth of our customer business.**	**2013**	**Grow the Alberta customer business to 600 MW and add long-term contracts to support new projects.**
Availability	Achieve top decile availability within the industry.	ongoing	Deliver 89-90% fleet availability.
Operational Optimization	Action operations opportunities to improve heat rate at Alberta coal and Canadian gas operations.	ongoing	Complete Fort Saskatchewan operational improvements.
Hydro Life Extension Project	Complete our hydro life extension project which will ensure safe and reliable energy production from our hydro operations for the next 40 years.	2020	Complete the condition assessment and receive scope approval of Brazeau.
Capacity Growth	Grow natural gas fired and renewables generation capacity, reducing coal to 25% of TransAlta's generation mix.	2025	• Identify and execute on natural gas and renewables generation opportunities. • Continue to implement the coal to gas transition for Centralia.
Comprehensive Indicators			
Reporting	Continue our commitment to ongoing improvement through external third party assurance.	ongoing	Action the assurance leanings provided to us by our assurance provider (Ernst and Young LLP).
	Increase transparency of environmental performance through quarterly reporting of environmental metrics to external stakeholders.	2016	• Release an internal bi-annual sustainability report. • Obtain listing on the Dow Jones Sustainability North America Index.
Supply Chain Management (SCM)	Adjust supplier selection processes to include additional sustainability criteria.	2015	Review existing selection criteria and identify one to two feasible options for inclusion in new contracts for 2014.
New Technology	Identify an investment-worthy carbon capture and storage (CCS), energy storage solution or renewable energy technology.	ongoing	• By 2016, present to management one plausible energy storage solution and/or new renewable energy technology. • Monitor CCS technology advancements for application on TransAlta assets.

message from Dawn Farrell, President and CEO

To be successful in the energy business, sustainability must be second-nature. Sustainability isn't merely a value or a belief – it's what you do to protect your wealth over the long term.

At TransAlta, we make long-term investments in our fleet. For all our fuel sources, how we weigh economic, environmental and social factors determines whether we build wealth or create waste. Wealth creates opportunity. Our customers receive competitive power, our shareholders track towards their retirement goals, our employees earn their incomes and our communities receive support for their social and economic challenges.

Our 2012 achievements are outlined in our Annual Report. There, we highlight last year's successes and challenges. In this report we extend our goals out in time and put them into the framework of sustainability. We also tell the full story of everything we do to preserve the investment in our assets over time.

As you examine our targets, you'll notice that what's "environmental" to others, is "economic" to us. For example, building our renewables fleet and extending the lives of our hydro plants – are at the heart of growing the economic prosperity of TransAlta.

You'll wonder how our team can track over 23 goals. Focus is at the heart of success. Setting too many goals can distract and water down results. We know this. Many of our goals are specific to team or individual achievements in the company. Many of them underpin what we do day in and day out. Only a handful of targets sit at the executive level. We have highlighted those targets and they are the ones I focus on. We believe our goals are ambitious and if we achieve what we have set out in this report, our company will be more sustainable than it is today.

It's important to understand how we set our targets. At TransAlta, we take pride in our work – we like everything to be done perfectly. But we're also pragmatic. We know that if we write something down, check our progress and keep at it, we will succeed. We also know that if we only write down what we are sure we can get done – we won't stretch ourselves. Achieving what we've set out in this report will take time – but we will do it. We recognize patience and pushing are two sides of the coin that will buy us success.

Three events in 2012 require additional commentary: our decision to shut down Project Pioneer, our learnings on safety, and our decision to let 160 people go in November.

Project Pioneer and Carbon Certainty

For more than five years, our company invested significant time, effort and capital into a carbon capture and storage (CCS) project called Project Pioneer. We set out to prove the value of the project and we worked hard to ensure its success. Last year, we recognized that without a carbon price and a market for CO_2 for the oilfields, the project was not economically feasible. As a result, we decided to shut down the project and not take the federal and provincial funding. This means two things for TransAlta. First, it's more than likely that some of our coal plants will reach 48.5 years of age before CCS is viable and will be replaced by either gas, hydro or wind. Second, we have to go back to the drawing board and study additional CCS technologies. We continue to believe that coal will be required for electricity production long-term, and our targets reflect this reality.

Record-Breaking Safety Performance

On safety – our learnings were so positive they now underpin the way we think about achieving goals and targets overall. Our safety results are top quartile, thanks to the determination of everyone at TransAlta to record incidents and near misses, examine and analyze them for trends, and share insights. By being open and transparent we now recognize where changes must be made to protect people and increase productivity. Recently, we have started to apply this model to forced outages. Replacing blame with accountability and learning have helped us build a more transparent culture – and we're seeing positive results.

Creating a Business-Centric Model

Our decision to reduce staff in 2012 was made within the context of driving competitiveness and our long-term sustainability. Our investments in technology, our reduction in construction projects and our move to decentralize decisions to the field, led to a reduction in staff. Over the years we have learned that when something hard has to be done, the best way to face it is with integrity and a deep resolve to treat people with respect. We know everyone who left will do well in the marketplace and we thank them for their service. I am extremely grateful for the employees who continue to work tirelessly to keep the company strong. They are the heart of our company and the driving force behind all of our sustainability efforts.

Strong Connection with Community

Just one comment on 2013 before I close. You'll see a long-term target on employee volunteerism in the communities we serve. We have a long history of volunteering through our retirees who have won awards for their community efforts. This year, I'm volunteering on a number of committees, the most notable being the co-chair with Chief Rick Hanson on our Calgary United Way campaign. We have many stories of how TransAlta employees have served their communities. I believe that empowering our employees to contribute to both their families and communities is at the heart of building a more sustainable future for all of us.

Until next year . . .

Sincerely,

Dawn Farrell
President and CEO
May 30, 2013

Essential. Engaged. Evolving.

Key to being a truly sustainable company is the value we create, the way we engage with others every day and how we strive for continuous improvement.

Essential

- Power is **essential** to the health and growth of economies. Industries, communities and citizens rely on what power enables and provides to support the fabric of societies.
- Having a clear strategy is **essential** for setting and achieving goals. TransAlta has outlined a clear strategic path forward and sustainability is deeply embedded within it.
- Our competitive cost-structure is **essential** to providing our customers with an affordable product.

Engaged

- Our employees are the backbone behind our company – their success is our success – their success comes from their **engagement** in the value we create as a team together.
- From community giving, to providing a safe workplace, to delivering customer excellence, we establish different programs to **engage** and create value for our employees, for our customers, and for communities.
- Listening is an essential component of being **engaged** in the dialogue with our stakeholders. We work hard to participate in diverse discussions, to both listen to other perspectives, and share ours.

Evolving

- We are evolving our fuel mix. For more than 15 years we have executed a strategy to diversify our asset base and **evolve** our service offering to customers.
- We have **evolved** as a company to have a more business-centric focus, a strategy that re-sets accountability across the fleet and positions us for success and improved sustainability into the future.
- We're continually **evolving** to meet the needs of a shifting economic environment.

corporate strategy, values and governance

At TransAlta, we're clear about who we are and what we want to accomplish. Our overarching corporate strategy is embodied in three key phrases: Build the Base, Grow and Diversify, and Energize People.

Corporate Strategy

Our strategy remains the same. We continue to focus on building our base of operations through operational excellence, growing and diversifying by focusing on gas and renewables, and investing in our people.

We plan to maintain our leadership as Canada's largest producer of wind energy and uphold our commitment in being a safe and responsible operator that is trusted by our customers to deliver reliable, low cost energy.

We've set specific goals to develop more gas-fired greenfield growth projects and deliver strategic acquisitions in Canada, the U.S. West and in Western Australia. We are also working to grow our customer base in Alberta, Canada where our company is headquartered.

In every community we serve and every market in which we compete, TransAlta wants to be the low-cost, low-carbon leader, with a reputation for responsible and ethical business practices, and efficient and reliable power generation operations.

In essence, we want to generate more power, with less impact and greater value.

Organizational Values

Organizationally, TransAlta is working to energize our employees by ensuring everyone understands the importance of meeting targets and has an equally crystalline understanding of their role, accountabilities and decision-making parameters.

Beginning in 2012, we realigned our corporate rewards program to incent employees to reach specific financial goals and share in payout bonuses if targets are reached or exceeded.

TransAlta has also identified five key attributes that we want all employees to develop and demonstrate in their daily work. We will be introducing programming that will help encourage employee growth and development, at every level within our organization. They include: drive for results, leadership, strategic thinking, professional excellence, and continuous development.

Employees Live our Sustainability Values

At TransAlta, we seek to live our values by energizing and engaging our employees through a variety of programs and initiatives. Now in its fifth year, our Eco-Action Team is a great example of how our key values of environmental leadership and sustainability are taking root.

Comprised of employees from different parts of the business, the team has been entirely volunteer-driven since its inception in 2009. The group hosts an annual Eco-Challenge, a fun and friendly competition between teams of employees to see which can achieve the greatest environmental impact. Components of past Eco-Challenges have included: alternative commuting challenges, print less days, eco-themed trivia and sports games, environmental innovation and fashion contests, and pathway and river cleanups. In 2012, the team also hosted its second 'TransAlta Bikes to Work' day, which encourages employees to try cycling to work in order to increase alternative commuting in the long run.

Over the years, the programs and efforts of the team have demonstrated that the combined actions of our employees can make a significant impact on the environment.

TransAlta practices progressive corporate governance.

Good Governance

TransAlta's Board of Directors is responsible for the stewardship of our company, establishing key policies and standards for risk assessment, management, and the review and approval of our strategic plans. The Board is actively engaged in our ongoing progress on short, mid and longer-term goals.

TransAlta is a progressive company that strives to meet the standards set out in the Canadian Securities Administrators' policies and instruments. Our governance practices are in alignment with all applicable requirements of Sarbanes-Oxley, including any U.S. Securities and Exchange Commission rules under Sarbanes-Oxley, as well as foreign private issuer standards of the New York Stock Exchange Corporate Governance Rules. The committees within the Board provide oversight regarding our sustainability progress and specific initiatives.

TransAlta's Standing Committees of the Board include the Audit and Risk Committee, the Human Resources Committee and the Governance and Environment Committee.

TransAlta is committed to operating in a safe and ethical manner. We endorse ongoing, constructive dialogue with employees, shareholders and other stakeholders as part of this commitment and we have systems in place where these individuals may report potential ethical concerns, on an anonymous basis, either directly to the Audit and Risk Committee or to the director, Internal Audit, who engages, as required, Corporate Security, Legal and Human Resources in determining an appropriate course of action. These concerns and any actions taken are discussed with the chair of the Audit and Risk Committee, providing a direct link between all stakeholders and the Board.

All employees and directors must annually sign our Corporate Code of Conduct.

Our Board, through its Governance and Environment Committee, provides oversight to environment, health and safety (EH&S) practices, procedures and policies as established by management in relation to legal/regulatory and industry standards or best practices. The Committee reviews EH&S performance, is briefed on environmental policy and regulatory developments, and discusses strategy questions related to TransAlta's sustainability goals on a quarterly basis.

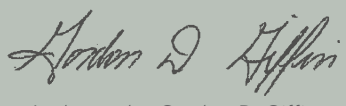
In addition, our Board, through its Human Resources Committee, is responsible for the design and application of our executive compensation strategy. Our executive compensation framework is designed to pay for performance as measured against set goals, including those relating to environmental and sustainability performance.

Message from the Chair

TransAlta is continuing to diversify the fuel and the geography of its generating fleet, while being innovative and prudent relative to the regulatory regime applicable to its historic coal-fired assets. Dawn Farrell has aligned company management to respond to this new-paradigm era for power generation. The executive team and dedicated employees throughout the organization are focused on building a 21st-century power generator that is sensitive to environmental concerns, committed to efficiently serving its markets, and intent on enhancing shareholder value.

As Chair, I assure you that your Board is engaged and an active partner with management in charting the course for this new era of providing power to markets in North America and Australia. We are not daunted by the challenges and we welcome the opportunity to apply creativity and vision to the future growth of TransAlta. We will continue our policy of employing top governance practices, prudent capital allocation, industry-leading safety performance, and environmental best practices, all the while remembering our duty to you, our stakeholders.

Sincerely,



Ambassador Gordon D. Giffin
Chairman of the Board
May 30, 2013

assurance learnings from 2011

Last year, TransAlta again engaged Ernst and Young LLP to carry out limited assurance procedures on our 2011 Report on Sustainability.

The assurance procedures included: reviewing the collection, aggregation and validation processes of selected data; assessing data accuracy and completeness; and an overall assessment of the corporate responsibility report. The findings and recommendations relate to processes and controls that were in effect during the 2011 reporting year.

Ernst and Young identified the following positive aspects:

- Quality control – TransAlta conducted a review of data which led to minimal findings related to data accuracy and completeness, of which none were material.
- Cooperation and knowledge – TransAlta's project lead was responsive to all queries in an effective and efficient manner which led to no time delays during the engagement.

Ernst and Young also identified recommendations related to internal business continuity planning and corporate governance with respect to sustainability reporting and data management:

- To minimize the risk of data loss or corruption in the event of a disruption within the business, TransAlta should consider adopting a business continuity process for data management (policies, standards, and procedures). The purpose of a business continuity process is to minimize the operational, financial, legal, reputational and other material consequences arising from a disruption.
- While reporting guidelines are followed, there is no corporate guidance or procedural documents for the reporting of data. Providing this type of guidance information could reduce the risk of an inconsistent approach and variations in the scope of data being collected.

In response to the above findings, TransAlta has built up the team responsible for sustainability reporting. Key performance metrics for the sustainability team include the development of comprehensive procedures for compliance and sustainability reporting. It is the intent that these procedures address any potential risks to data or inconsistencies in approach. The group is committed to continuous improvement and these efforts will include the incorporation of the assurance findings and recommendations provided by Ernst and Young.

Strengthening Sustainable Development

In 2012, TransAlta took steps to strengthen the internal resources we devote to sustainability. We added resources to the Sustainable Development group, which has grown to four full-time employees. We also began creating a company-wide series of sustainability targets that will be embedded in the operating plans of TransAlta's business units in 2013.

Our targets span environmental, social and economic factors. Oliver Bussler, director, Sustainable Development, explains, "Our goal is to create more visibility for sustainability metrics within each business unit and to promote linkages between the company's sustainability targets and individual employee performance goals."

Key environmental targets include initiatives to advance several reclamation projects that are currently underway, reduce waste and energy consumption, and significantly increase our natural gas and renewable generation capacity.

Our social targets focus on safety performance, increased productivity, enhancement of our business culture, and a greater emphasis on stakeholder and Aboriginal relations engagement.

Economic sustainability targets are directed at improving fleet availability, maintaining an investment grade rating, increasing operational optimization and customer retention business growth. *(See pages 02-03 for details.)*

awards and recognition

Learn More transalta.com/sustainability/awards-achievements

We strive for excellence in all that we do. External recognition from leading sustainability indexes and other organizations motivates us to continually do more.

FTSE4Good Index 2012	This year marks our sixth consecutive year on the FTSE4Good Index. This London-based sustainability index measures the performance of companies that meet globally-recognized corporate responsibility standards.
Sustainalytics Top 50 Socially Responsible Corporations 2012	Sustainalytics, a global leader in sustainability analysis, and Maclean's have recognized TransAlta many times for our industry leadership in setting standards for best practices in sustainable development, and for demonstrating superior environmental, social and economic performance. 2012 marks our fourth consecutive year of recognition.
Oilweek & ATB Financial Annual Report Awards 2012	In 2012, TransAlta achieved: Best in Class for Editorial/Graphic design for our 2011 Annual Report and Report on Sustainability. We were also recognized as Best in Class for Financial Statements & Analysis for our 2011 Annual Report.
Plant of the Year Award	On December 3, 2012, the Powder River Basin Coal Users' Group named TransAlta's Centralia plant in the U.S. Pacific Northwest as '2013 Plant of the Year'. Centralia was up against hundreds of coal plants throughout the United States after someone from outside of the company nominated the plant for the honour. The award is bestowed on coal plants for continuous improvement, implementation of industry best practices, and an exemplary environmental and safety record.
The Globe and Mail's Corporate Governance for Canadian Companies	For the eleventh consecutive year, the Globe and Mail has recognized TransAlta as one of the best governed corporations in Canada, and one of the top utilities for corporate governance.
United Way	We continue to be an active supporter of the United Way in Canada, the United States, and Australia, with employee volunteer-driven campaigns at locations across our fleet. In 2012, we were again honoured with the Thanks a Million Award, for companies that contribute more than $1 million in their annual campaigns. TransAlta has maintained the million dollar level since 2001.

TransAlta representatives accept the Plant of the Year Award at the Annual Meeting of the Powder River Basin Coal Users' Group.

map of operations

4,770,890 MWh
of renewable power generated in 2012

generation facilities

- *coal-fired plants*
- *hydro plants*
- *gas-fired plants*
- *wind-powered plants*
- *geothermal plants*
- *corporate offices (3)*
- *energy marketing offices (2)*

plant summary

Learn More transalta.com/facilities/plants-operation

As of February 8, 2013	Facility	Capacity (MW)[1]	Ownership (%)	Net capacity ownership interest (MW)[1]	Fuel	Revenue source	Contract expiry date
Western Canada 39 Facilities	Sundance, AB[2,3]	2,141	100%	2,141	Coal	Alberta PPA/Merchant[4]	2020
	Keephills, AB[5]	792	100%	792	Coal	Alberta PPA/Merchant[5]	2020
	Genesee 3, AB	466	50%	233	Coal	Merchant	-
	Keephills 3, AB	450	50%	225	Coal	Merchant	-
	Sheerness, AB	780	25%	195	Coal	Alberta PPA	2020
	Poplar Creek, AB	356	100%	356	Gas	LTC/Merchant	2024
	Fort Saskatchewan, AB	118	30%	35	Gas	LTC	2019
	Brazeau, AB	355	100%	355	Hydro	Alberta PPA	2020
	Big Horn, AB	120	100%	120	Hydro	Alberta PPA	2020
	Spray, AB	103	100%	103	Hydro	Alberta PPA	2020
	Ghost, AB	51	100%	51	Hydro	Alberta PPA	2020
	Rundle, AB	50	100%	50	Hydro	Alberta PPA	2020
	Cascade, AB	36	100%	36	Hydro	Alberta PPA	2020
	Kananaskis, AB	19	100%	19	Hydro	Alberta PPA	2020
	Bearspaw, AB	17	100%	17	Hydro	Alberta PPA	2020
	Pocaterra, AB	15	100%	15	Hydro	Alberta PPA	2013
	Horseshoe, AB	14	100%	14	Hydro	Alberta PPA	2020
	Barrier, AB	13	100%	13	Hydro	Alberta PPA	2020
	Taylor Hydro, AB	13	100%	13	Hydro	Merchant	-
	Interlakes, AB	5	100%	5	Hydro	Alberta PPA	2020
	Belly River, AB	3	100%	3	Hydro	Merchant	-
	Three Sisters, AB	3	100%	3	Hydro	Alberta PPA	2020
	Waterton, AB	3	100%	3	Hydro	Merchant	-
	St. Mary, AB	2	100%	2	Hydro	Merchant	-
	Upper Mamquam, BC	25	100%	25	Hydro	LTC	2025
	Pingston, BC	45	50%	23	Hydro	LTC	2023
	Bone Creek, BC	19	100%	19	Hydro	LTC	2031
	Akolkolex, BC	10	100%	10	Hydro	LTC	2015
	Summerview 1, AB	70	100%	70	Wind	Merchant	-
	Summerview 2, AB	66	100%	66	Wind	Merchant	-
	Ardenville, AB	69	100%	69	Wind	Merchant	-
	Blue Trail, AB	66	100%	66	Wind	Merchant	-
	Castle River, AB[6]	44	100%	44	Wind	Merchant	-
	McBride Lake, AB	75	50%	38	Wind	LTC	2023
	Soderglen, AB	71	50%	35	Wind	Merchant	-
	Cowley Ridge, AB	21	100%	21	Wind	Merchant	-
	Cowley North, AB	20	100%	20	Wind	Merchant	-
	Sinnott, AB	7	100%	7	Wind	Merchant	-
	Macleod Flats, AB	3	100%	3	Wind	Merchant	-
Total Western Canada		**6,536**		**5,315**			
Eastern Canada 14 Facilities	Sarnia, ON	506	100%	506	Gas	LTC	2022-2025
	Mississauga, ON	108	50%	54	Gas	LTC	2017
	Ottawa, ON	68	50%	34	Gas	LTC	2012
	Windsor, ON	68	50%	34	Gas	LTC/Merchant	2016
	Ragged Chute, ON	7	100%	7	Hydro	Merchant	-
	Misema, ON	3	100%	3	Hydro	LTC	2027
	Galetta, ON	2	100%	2	Hydro	LTC	2031
	Appleton, ON	1	100%	1	Hydro	LTC	2031
	Moose Rapids, ON	1	100%	1	Hydro	LTC	2031
	Melancthon, ON	200	100%	200	Wind	LTC	2026-2028
	Wolfe Island, ON	198	100%	198	Wind	LTC	2029
	Kent Hills, NB	150	83%	125	Wind	LTC	2033-2035
	Le Nordais, QC	99	100%	99	Wind	LTC	2033
	New Richmond, QC[7]	68	100%	68	Wind	Quebec PPA	2032
Total Eastern Canada		**1,479**		**1,332**			
United States 17 Facilities	Centralia Thermal, WA	1,340	100%	1,340	Coal	Merchant	-
	Centralia Gas, WA	248	100%	248	Gas	Merchant	-
	Power Resources, TX	212	50%	106	Gas	Merchant	-
	Saranac, NY	240	37.5%	90	Gas	Merchant	-
	Yuma, AZ	50	50%	25	Gas	LTC	2024
	Imperial Valley, CA[8]	327	50%	164	Geothermal	LTC	2016-2029
	Wailuku, HI	10	50%	5	Hydro	LTC	2023
	Skookumchuck, WA	1	100%	1	Hydro	LTC	2020
Total U.S.		**2,428**		**1,979**			
Australia 5 Facilities	Parkeston, WA	110	50%	55	Gas	LTC	2016
	Southern Cross, WA[9]	245	100%	245	Gas/Diesel	LTC	2013
	Solomon Power Station[10]	125	100%	125	Gas/Diesel	LTC	2028
Total Australia		**480**		**425**			
Total		**10,923**		**9,051**			

1 *Megawatts are rounded to the nearest whole number.*
2 *Includes a 15 MW uprate on Sundance Unit 3; the resulting increased capacity will not be realized until the generator stator is replaced.*
3 *Includes Sundance A expected to be back in service in the fall of 2013 (560 MW).*
4 *Merchant capacity refers to uprates on Unit 4 (53 MW), Unit 5 (53 MW), and Unit 6 (44 MW).*
5 *Testing of the Keephills Unit 1 and Unit 2 uprates has been completed and it was determined that the actual capability of the uprates was less than originally anticipated. As a result we have adjusted the uprates to 13 MW, bringing the maximum capability of these units to 396 MW each.*
6 *Includes seven individual turbines at other locations.*
7 *Facilities currently under development.*
8 *Comprised of 10 facilities.*
9 *Comprised of four facilities.*
10 *This facility was acquired in September 2012 and was under construction for the remainder of 2012. The plant is expected to be fully commissioned in Q1 of 2013.*

environmental performance

TransAlta protects. We work to minimize environmental impacts, thoroughly reclaim former operating sites and collaborate on new technologies to reduce emissions.

Terry Kwas, *Manager, Environment, Health and Safety – Wind*
Terry is responsible for environment, health and safety teams for the wind fleet. Prior to this role Terry has worked in different capacities in the wind group focused on compliance aspects and leading permitting activities for all of TransAlta's greenfield wind projects since 2000.

evolving sustainably

TransAlta applies advanced technologies, supports research and has developed a comprehensive environmental management system. All are about generating more electricity with less impact.

Addressing Emissions; Building Renewables

Between 2005 and 2012, TransAlta recorded a 36 per cent (over 15 million tonnes CO_2e) gross reduction in total greenhouse gas emissions (GHGs) and a 10.5 per cent CO_2e emissions intensity reduction. These reductions are largely linked to the retirement of older coal-fired facilities in our fleet, as well as reductions from operating units being out of service during both planned and unplanned outages.

TransAlta has a long-term focus on GHG emissions reduction that we will achieve through the ongoing transition of our generating portfolio into more renewables, and with evolving technologies that will reduce CO_2 from coal-fired facilities.

In the nearer term, TransAlta is concentrating on other emissions associated with coal-fired combustion, including mercury and particulate matter. In 2012, our new mercury capture technology was successfully implemented at our Centralia, Washington coal-fired facility, achieving a mercury capture rate of 67 per cent – well above the regulatory requirements for the facility. The technology is unique in that it employs a two-stage process for mercury capture by first injecting an oxidizing agent into the furnace to make the second stage of activated carbon injection more effective.

Work will continue throughout 2013 to introduce this technology to our Alberta Sundance and Keephills coal plants, which are already capturing 70 per cent.

These reductions reflect our company's ongoing efforts to lower our environmental footprint, for both environmental and business risk reasons. We recognize that we are approaching a constrained carbon future and that we must carefully transition our coal-fired assets, so we reduce their impacts while ensuring we secure the value from these long-term investments.

The ongoing pursuit of renewables and gas generation is a key strategy for managing our emissions profile. In 2012, we oversaw construction of the New Richmond Wind Facility in Québec, which adds 68 MW of renewable power to our generating portfolio. TransAlta is one of the largest wind power producers in Canada, with wind power now accounting for nearly 13 per cent of our net capacity.

In recent years, TransAlta has made large investments in the renewal of our hydro fleet, again, to protect our long-term interests in these facilities, which provide essential baseline power that strengthens the overall grid in Alberta, while creating negligible atmospheric emissions.

Growth in Australia

On September 4, 2012 TransAlta announced the acquisition from Fortescue Metals Group Ltd. of the 125 megawatt dual-fuel Solomon power station, located in the Pilbara region of Western Australia.

"This acquisition represents a significant expansion of our energy business in Western Australia and provides TransAlta with a new valued customer," said Dawn Farrell, President and CEO. "It fits with our strategy of being a leading behind-the-fence generator in that region and provides us with a broader platform for future growth."

The Solomon power station, currently under construction with expected commissioning in 2013, will be fully contracted with Fortescue under a long-term Power Purchase Agreement (PPA) and will support their iron ore mining operations.

The Soloman power station brings 125 MW to our gas fleet.

evolving sustainably

Learn More transalta.com/sustainability/environment

33%
reduction in kg of mercury (Hg) emissions between 2011 and 2012

TransAlta is also aggressively pursuing a plan to build more natural gas-fired generation capacity to replace coal. In 2012, we advanced planning on the new 700 MW gas-fired Sundance 7 generating facility. Natural gas-fired power generation creates less than half of the CO_2 of conventional coal-fired facilities and will play an increasingly prominent role in our generating portfolio.

Active participation in public policy with governments in Canada and the U.S. has enabled TransAlta to develop agreements that have provided opportunities for balanced emissions reductions. The TransAlta Energy Transition Bill, which was enacted into law in April 2011 in Washington State, is the product of strong collaboration around the common goal of reducing emissions while protecting the local economy near our Centralia, Washington generating facility.

Similarly, in Canada, in 2012, TransAlta was one of a number of electricity generators who worked proactively with provincial and federal governments to achieve clarity about the long-term emissions rules for coal-fired facilities.

Don Wharton, vice-president, Policy and Sustainability, explains, "The new Canadian coal-fired power plant regulation reduced the uncertainty associated with carbon from coal plants. We can now assess a variety of strategies with respect to our coal units and we have time to consider viable options for reducing carbon after our coal plants reach their end of life."

Environmental Incidents Drop

In 2012, TransAlta recorded a total of 17 environmental incidents, a reduction of 19 per cent from the 21 reported in 2011. Achieving a consistently lower environmental incident rate over time is directly attributable to the strong Environment, Health & Safety (EH&S) management systems that govern employees working across our fleet.

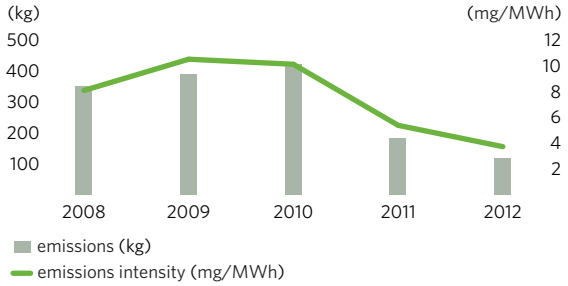
In 2012, TransAlta's EH&S team underwent a reorganization process, in alignment with our overall corporate reorganization, which has invested each operational site with greater accountability and control.

Bob Emmott, chief engineer, says, "We have made a concerted effort to create a culture where the transparent reporting of all incidents, whether they are environmental or safety-related, is encouraged as a means to continually enhance the safety and effectiveness of our workplace."

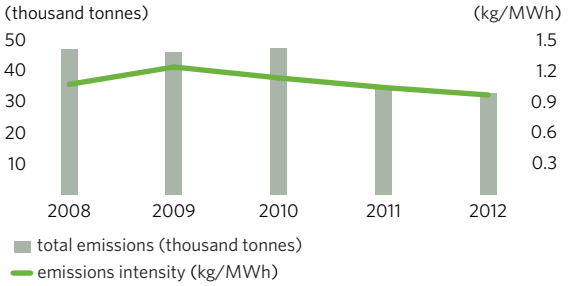
Our Emissions

We continue to progressively reduce our emissions of air pollutants as shown below.

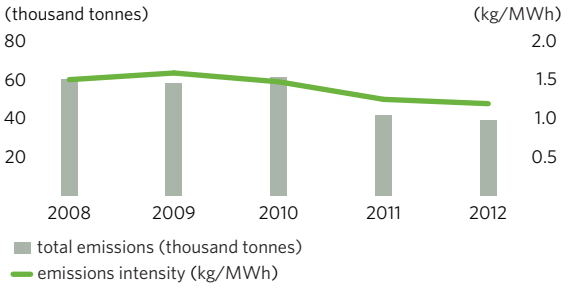
Mercury emissions



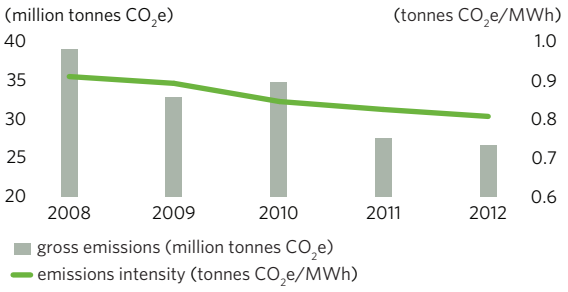
SO_2 emissions



NOx emissions



Greenhouse gas (GHG) emissions



5%

reduction in tonnes of nitrogen oxides (NOx) emissions between 2011 and 2012

Reducing NOx Emissions at Centralia

TransAlta's Centralia power plant began running its newly installed Selective Non-Catalytic Reduction (SNCR) technology on January 1, 2013, following a fast-track effort to implement the system in less than two years. The SNCR project was initiated after an agreement was reached and legislation targeting air pollution and haze reduction was passed in Washington State in 2011. New standards for nitrogen oxide (NOx) control were introduced, requiring the Centralia plant to limit the amount of NOx generated to no more than .21 pounds for every million British Thermal Units (BTUs) of energy created.

TransAlta commissioned the new system for Centralia based on using best available retrofit technology (BART). The SNCR technology works through the introduction of a reducing chemical, in this case urea, which is injected into the boiler at precise locations through a bank of strategically placed nozzles and in a carefully controlled temperature range, of between 1,600°-2,100° F. The chemical reacts with the NOx molecules to produce elemental nitrogen and water, while significantly lowering the amount of NOx, and the potential for forming visible haze.

"It was a team effort to get the system designed, installed and built in such a short time, and to have done so safely and with such promising results," says Centralia's fuel manager, Will Greenough, adding, "This enables the plant to move forward to its 2025 end of life without further greenhouse gas emission limitations, while improving current air quality standards in the region."

Engineering design for the new SNCR system was completed during the planned 2011 outage at the plant and required more than 100,000 person-hours to install and construct. TransAlta will continue to regularly report its NOx emissions to the Washington State Department of Ecology. Our company will also continue working to optimize the new technology, testing NOx emissions generated at different operating rates, with the goal of continuous reduction improvements.

Centralia Named Power Plant of the Year

The Powder River Basin (PRB) Coal Users' Group Board of Directors awarded TransAlta's Centralia operations the honour of 2013 Plant of the Year, a distinction earned after being compared to hundreds of coal plants throughout the United States. Award recipients must have an exemplary environmental and safety record.

Assistant Control Operator Mark Sheets inspects the density set point on the Urea Concentrate Pump controls on the newly installed SNCR system at Centralia.

PRB Board Chairman Bob Taylor said, "It is most evident that the Centralia plant, its leadership and employees are aligned to the mission of the PRB Coal Users' Group and serve as a model to others for continual improvement by 'doing it right'."

The Centralia facility has had no significant environmental events in the past several years, and recently logged an entire year of operations without a single safety or environmental reportable event.

Centralia's fuel manager, Will Greenough, says, "This award is very significant. You can't do it unless you're a team. That attitude is what allows us to operate and send people home at night safely."

10.5%

reduction in CO_2e emissions intensity in 2012 as compared to 2005

Project Pioneer's Knowledge Legacy

Coal is the earth's most abundant and inexpensive source of energy, but its continued role in the global fuel mix requires meaningful reductions of CO_2 emissions.

For the past several years, TransAlta led a project team with partners Capital Power and Enbridge in addressing this global challenge, by studying the feasibility of constructing and operating one of the first industrial-scale projects featuring carbon capture and storage (CCS) technology retrofitted onto a modern coal-fired power plant.

In April 2012, the industry partners determined that, although the technology was viable and capital costs were on target, the market for carbon sales and the price of emissions reductions were simply not sufficient to allow Project Pioneer to go forward.

However, TransAlta was committed to ensure that all the knowledge and experience of the project was shared as widely as possible. To that end, we captured the entire body of knowledge in a 300-page final report and conducted extensive debriefing sessions with both the federal and provincial governments, and with the Global CCS Institute, to ensure others could benefit.

Don Wharton, vice-president, Policy and Sustainability, says, "Project Pioneer continues to advance the entire state of play on CCS. The knowledge transfer process has been concrete, extensive, valuable and is facilitating CCS implementation in other parts of the world."

Numerous insights were gleaned over the initial phase of the project. Among the most important is the critical role economics and a robust policy framework play in incenting CCS development.

As part of the 'knowledge sharing' program and philosophy that Project Pioneer believed in, core samples from the project's sequestration evaluation well were given to the University of Calgary for further study.

Markets for CO_2 sales need to be developed and there also needs to be greater assurances about the value of greenhouse gas emissions reductions for commercial CCS projects to be able to predict future revenue streams. In addition, market demand for CO_2, which is uncertain and based on changing oil and gas technologies, is an important economic consideration.

Project Pioneer concluded that it is technically and operationally feasible to retrofit amine scrubbing technology on a coal-fired power plant. The project also explored ways to further improve this approach, by adding a standalone cogeneration unit to produce steam and power, which simplifies the connection between the host power plant and reduces overall costs.

These and other findings related to CCS costs, funding mechanisms, the regulatory consultation, the application and permitting process, knowledge sharing and stakeholder engagement, will continue to inform CCS proponents worldwide.

A Deeper Understanding

Project Pioneer contributed to a much deeper understanding of CCS technologies, which has been broadly shared with the international community through reports, presentations and workshops. Some of the areas Project Pioneer has investigated and furthered include:

- Comprehensive economic evaluation of two distinct carbon capture technologies at near-commercial scale
- Comprehensive economic evaluation of the impact of a carbon capture project on Albertan and Canadian economies and communities
- CO_2 pipeline design at a one megaton/year scale
- CO_2 sequestration geologic evaluation program and suggested measurement, monitoring and verification (MMV) program
- CCS project risk mitigation process development
- Development of a commercial model for a consortium approach to CCS development within the power sector
- Public perception studies of CCS in Alberta and Canada
- Technology selection process development

sustainable growth

Our New Richmond, Québec wind facility adds 68 MW and solidifies our position as Canada's largest wind power generator.

New Richmond Wind Farm Energized

Throughout 2012, TransAlta worked to complete construction of the New Richmond wind facility, located in the wind-rich Gaspésie area of Québec. Officially commissioned on March 13, 2013, the site's 33 new Enercon wind turbines add 68 megawatts (MW) of generating capacity, which is enough electricity to meet the needs of approximately 11,000 Québec homes annually. Power from the new wind facility is being supplied to our customer, Hydro-Québec, under a 20-year power purchase agreement.

Julie Turgeon, development and construction manager says, "The Enercon turbines we installed at New Richmond feature gearless technology, require less maintenance and are highly efficient. We're excited about the performance capabilities they offer."

During the development and construction period, TransAlta made a concerted effort to create positive, long-term relationships and demonstrate transparency in all of our interactions with local stakeholders. A community liaison group met with local residents on a monthly basis to answer questions and we also consulted closely with the Ministry of Natural Resources on environmental considerations. TransAlta completed extensive work on the environmental assessment process in advance of the project and also established a comprehensive bird and bat monitoring program.

Ensuring local businesses and residents would benefit from our presence in the area was also an important goal. The construction and development stages of the project generated 600,000 person-hours of employment or about 250 jobs, most for skilled workers, including millwrights, iron workers, crane operators and electricians.

The New Richmond wind facility increases TransAlta's supply of wind in the Québec market to 165 MW, and is viewed as a strategic pillar for future growth in the province.

Wind Facilities and Public Concerns

Rapid development of wind power in some Canadian jurisdictions, particularly in Ontario, has led to public concern about the potential relationship between wind turbines and human health.

In July 2012, Health Canada, in conjunction with Statistics Canada, announced that a new research study is being implemented to explore the relationship between wind turbine noise and health effects reported by, and measured in, people who live near wind facilities. The study is being designed with support from external experts in the areas of noise, health assessment, clinical medicine and epidemiology.

TransAlta supports Health Canada's study and efforts like this to bring independent scientific assessment to this relatively new area of energy development. Results from the study, which will target a sample of 2,000 dwellings located near eight to twelve different wind turbine facilities in Canada, are expected to be available in 2014.

The New Richmond wind facility is located in the wind-rich Gaspésie area of Québec and adds 68 megawatts to TransAlta's renewable power portfolio.

$62.9 million

on environmental expenditures and investments in 2012, such as: monitoring, audits, reclamation, etc.

Bird and Bat Monitoring at Wolfe Island Wind Facility

Since 2009, TransAlta has implemented one of the world's most comprehensive post-construction follow-up monitoring plans for birds and bats, at our Wolfe Island wind facility near Kingston, Ontario. TransAlta's Wolfe Island wind facility is the second largest in the province, with 86 turbines capable of generating 197.8 MW of energy. The power is sold under a 20-year Renewable Energy Supply II contract with the Ontario Power Authority.

TransAlta's monitoring program at the Wolfe Island wind facility has been ongoing for three years and is conducted by an independent, third-party contractor. It involves a variety of surveys that are staged on a month-to-month basis, to capture local bird and bat mortality rates and identify patterns that may impact these rates, such as important spring and fall migratory seasons. The surveys also capture data on disturbance effects and accommodate a variety of species, including raptors such as red-tailed hawks, osprey and turkey vultures, as well waterfowl and woodland and marsh bird populations. Impacts on wintering areas, staging, foraging and breeding grounds, and grasslands are also examined and the results shared with Natural Resources Canada, Environment Canada, Ontario's Ministry of Natural Resources, and Ducks Unlimited.

Terry Kwas, manager, Environment, Health and Safety – Wind, says, "The initial monitoring program confirmed that while overall mortality rates for both birds and bats at Wolfe Island met accepted threshold rates stipulated by regulators, there was higher than anticipated raptor mortality. We have investigated further, looking for root causes and adaptive management strategies to address this concern."

TransAlta has tested measures such as varied turbine blade cut-in speeds and different operating times during sensitive activity periods, adding to the new and growing body of knowledge on techniques to reduce both bird and bat mortality at wind facilities.

ASK US

Q: Why do the individual speeds of wind turbines sometimes vary within a single wind farm?

Raymond Bujold
Representative of the St-Alphonse Citizen

A: Wind turbines start operating at wind speeds of around 4 meters/second (14 km/hr) and reach optimum output at around 25 meters per second (90 km/hr). The difference you see in turbine blade speed can be attributed to the differences in wind speed across the site at any given time as well as the difference in low and high terrain at the New Richmond site. For safety reasons, turbines do not operate when wind speeds are too high or if the unit is shut down for maintenance.

Protecting the Bobolink

The Bobolink is a songbird that breeds across North America and features a distinctive white back and yellow collar. Populations have declined over the past 50 years due to impacts to its preferred habitat of grassland and hayfields. Mowing of hay during breeding periods is considered a potential threat to the species, which receives protection under Ontario's Endangered Species Act. In 2012, TransAlta set aside a parcel of native grassland on Wolfe Island, preserving vital habitat for this species.

The endangered Bobolink in its natural habitat.

$2,109,568

hydro life extension investment 2012

Pocaterra Penstock Successfully Replaced

In 2011, TransAlta began implementing a $350 million Hydro Life Extension Plan to refurbish key hydro assets. One of the first projects identified under this initiative was the replacement of the Pocaterra penstock, which is a large pipe used to divert water, and part of TransAlta's Pocaterra Hydro Facility on the Kananaskis River in Peter Lougheed Provincial Park.

The Pocaterra Hydro Facility generates an average of 29,000 megawatt hours each year by diverting water from the Lower Kananaskis Lake to run the turbine. When originally built in 1955, Pocaterra's penstock was made from wood and was an aboveground structure, typical of the standard at the time. By 2012, the penstock had reached the end of its design life and required replacement, allowing the entire hydro facility to continue safe operations well into the future.

TransAlta developed a comprehensive public consultation program to inform and gather feedback from area residents, businesses, recreational users and the First Nations communities in the area and contracted an engineering firm, Knight Piesold, to design and integrate the new penstock. Spirit Pipelines constructed the penstock under contract and management by TransAlta.

John Olsen, project manager, says, "Good planning and a good project team are vital in a project of this scope. We had a year-long pre-planning process and engaged in early stakeholder consultation. Both approaches contributed greatly to the project's success."

The new penstock was fabricated from steel and was buried underground, in parallel alignment to the existing penstock, to minimize impacts to the downstream environment. Burying the penstock also removed a barrier for wildlife and reduced the overall visual impact of the facility, which is located in a popular wilderness area.

Installation of the new penstock began in May 2012 and involved placing the 11-foot diameter penstock sections into pre-dug trenches and welding them together. All welds were then inspected and then specially coated to prevent rusting prior to the trenches being backfilled. The ground was then contoured and capped with soil to mimic the natural surroundings. The old penstock, which contained creosote, was removed from the site and safely disposed of in a Class II landfill.

On November 15, 2012, the construction team opened the intake of the dam, allowing the new penstock to fill with water for the first time. After thorough inspections, the Pocaterra plant was back in operation on November 19, 2012. Final installation of minor surface drainage and reclamation including grass planting will be done in spring 2013, followed by further inspections by TransAlta's operations team and Alberta Parks.

Watching Out for Wildlife

The remote location of the Pocaterra penstock worksite and its proximity to wildlife posed several unique safety challenges. TransAlta addressed these by hiring the Wind River Bear Institute (WRBI) and their trained Karelian bear dogs. The dogs and their handlers would sweep the project site every morning to check for black or grizzly bears. The dogs, noisemakers and rubber bullets were used to redirect bears away from the work site. Efforts were also made to ensure that TransAlta's team maintained strict rules regarding food and garbage disposal, to prevent attracting wildlife or habituating it to the presence of humans.

Claire Edwards (left) and Carrie Hunt (right) from WRBI monitoring for bear activity.

1,960,870 MWh
of hydro power generated (net) in 2012

Creating New Fish Habitat at Cascade River

TransAlta's Cascade hydro power plant is located on the Cascade River in Banff National Park, Alberta, the only power development in a Canadian national park. Named for the native term meaning 'mountain where the river falls', the Cascade facility generates an average of 52,000 MWh annually.

In 2011, TransAlta began an overhaul of the Cascade facility's Unit 2, which involved a temporary alteration to the facility's flow system. For the more than 70 years the plant has operated, the tailrace (the waterway area that carries water away from the plant after it has been fed through the turbines) had gradually become less hospitable to fish.

In addition, fish species such as bull trout, mountain whitefish, brown trout, and longnose suckers would migrate up the lower Cascade River from the Bow River, often times ending up in the tailrace pool, where they could be temporarily isolated during periods of reduced flows or subject to limited habitat during higher flows when the plant ran at maximum capacity.

In 2012, TransAlta developed the Cascade Fish Compensation Project to provide a long-term functional solution to compensate for the reductions in fish habitat on the lower Cascade River. In consultation with Parks Canada, Fisheries and Oceans Canada (DFO), and an independent consultant Matrix Solutions Inc., TransAlta implemented the plan in mid-June. Seven large pool habitats were built downstream of the tailrace on the lower Cascade River, using an excavator and a rock truck. Boulder clusters and anchored trees were then placed in these pools to provide overhead cover and refuge during elevated or reduced river flows.

Glenn Isaac, manager, Environment, Health and Safety – Hydro, says, "This project demonstrates TransAlta's commitment to improving the Cascade River environment. We've invested over $200,000 in the development of the habitat, and have made a five-year commitment to follow-up monitoring the area to determine the success of the project over time."

The comprehensive pre- and post-construction monitoring program will enable TransAlta to establish an understanding of the baseline fish population in this section of the Cascade River that can be followed up in future studies to evaluate the success of the program.

In 2012, TransAlta also supported Parks Canada's efforts to restore fish habitat at Cascade Creek. This was accomplished by altering flow levels to aid in the removal of accumulated silt in the channel bed and by providing assistance to Parks Canada in removing non-native fish in the creek, salvaging them and relocating them to the Bow River.

As part of the project fish were relocated out of the construction area each morning before the start of daily construction activities. Monitoring for turbidity during the construction activities occurred to ensure levels were kept within the limits that are safe for fish and other aquatic organisms.

reclamation

At TransAlta, we take the long view. We know long-term thinking and long-term planning are key to successful reclamation.

Creating New Eco-Systems at Centralia

TransAlta invested approximately $15 million and directed more than 50,000 employee-hours in 2012 to advance ongoing reclamation activities at the former Centralia coal mining site in Washington State, U.S. The expenditure is part of a multi-year process that will eventually see 8,500 acres across the site's five mining areas transformed into flourishing forests and wetlands by 2030.

Reclamation is an exacting process that starts at a subterranean level. Centralia Mine Manager, Tony Briggs explains, "Our reclamation work is all about putting things back in place, as close to the former natural state as possible. Once complete, the reclaimed forest will be self-sustaining."

The operational lifespan of the Centralia coal mine was 35 years, during which 160 million tonnes of coal was extracted, along with another 1.5 billion yards of material. Consequently, much of the reclamation work involves replacing the soils and aggregate materials that were originally removed.

> Our reclamation work is all about putting things back in place, as close to the former natural state as possible. Once complete, the reclaimed forest will be self-sustaining.

Tony Briggs
Centralia Mine Manager

Land being reclaimed near Central Packwood pit. The ultimate goal of TransAlta's reclamation efforts at the former Centralia mine site is to create new eco-systems that are naturally self-sustaining and require little maintenance or intervention.

Al Klein, OSM Regional Director, and Ken Walker, OSM Division Manager, survey the 2012 reclamation progress at the Central Packwood pit with Ken Johnson, TransAlta Engineering Supervisor (left) and Tony Briggs, TransAlta Mine Manager (right).

Hauling of bulk dirt, backfilling mining pits, grading and shaping slopes and replacing topsoil has been underway for the past five years. In 2012, an additional 50,000 Douglas Fir trees were planted, joining the 1.5 million that have already taken root across the reclamation site. Significant effort is also being directed at re-establishing the site's watersheds, with carefully planned drainage being constructed to prevent erosion and maintain water quality. Upland areas will be planted with Douglas Fir and Red Alder trees; the lowland areas with a variety of native shrubs, including Red Alder, Dogwood, Pacific Ninebark, Wild Rose and Willow.

Effective planning is the key to successful reclamation and in 2012, TransAlta's final plan for the first phase of the reclamation process was submitted to the Federal Office of Surface Mining, Reclamation and Enforcement (OSM) and received approval. Tony says, "TransAlta has worked very collaboratively with the Office of Surface Mining and there's a lot of excitement and enthusiasm about this effort and the positive way it's turning out."

As this massive reclamation project continues and each section of the former mine site is completed, the OSM will inspect the reclamation efforts and if they are considered acceptable, will provide government certification. This regulatory approval will enable TransAlta to apply for release from the insurance bond that protects the Federal interests in the land and mandates the reclamation process.

85,000
trees planted at Whitewood Mine in 2012

Wabamun Plant Reclamation Wins President's Award

TransAlta's Wabamun area reclamation project entered a transformative new phase in 2012, as the team responsible made major progress at the site, and earned a coveted President's Award for their planning and teamwork in the process.

Reclamation of the former coal-fired power plant located near the Village of Wabamun, approximately 67 kilometres west of Edmonton, Alberta, has been ongoing since 2002. TransAlta applied a phased shut down of the site's four generating units over the past decade, and the plant was officially decommissioned in 2010 and demolished by implosion in mid-2011.

Since then the reclamation team, led by Clark Williams, director of Wabamun decommissioning, has been engaged in a wide variety of activities – from hauling away tonnes of metals for recycling and stockpiling of coal ash, which is being sold to a cement manufacturer, to the completion of exacting soil work. Areas where soil was disturbed were disked, harrowed and seeded and foundation footprints for the former plant sites were backfilled with clean fill. By the end of 2013, the reclamation process is expected to be complete, with the new vegetative cover of wild native grasses growing across the 120 hectare (300 acre) site.

Clark reports, "Throughout 2012, I saw change everyday. It's a remarkable transformation that has taken place. TransAlta is the first company in Alberta to undertake decommissioning of a coal-fired power plant on this scale. Throughout the project we've been able to uphold our commitments to responsibly decommission the Wabamun Plant."

TransAlta has also been mindful of the costs involved, as Alberta ratepayers are funding the reclamation process through the Alberta Balancing Pool, which pays for the decommissioning cost of any legacy generating units that are under PPAs and which retire before 2018.

Reclaimed land at Whitewood Mine.

Whitewood Mine Reclamation Nears Completion

Coal extracted from the Whitewood Mine was the source of fuel for the Wabamun Power Plant from 1962 to 2010, and in 2013, TransAlta continued to make progress returning the final 76 hectares of disturbed land, 1,900 hectares total (4,693 acres) at the former mine site back to a natural state.

In undertaking the reclamation work, TransAlta has helped lead the way in setting a new standard based on what makes sense for future land use, in collaboration with Parkland County, Alberta Environment and Sustainable Resource Development (AESRD) and other stakeholders. The restored mine site lands will be suitable for diverse end land use activities, including agriculture, and a mix of reforested and wetland areas.

Dan Kuchmak, reclamation planning specialist, Alberta Mining, says, "TransAlta is committed to conducting our reclamation activities in a responsive and responsible manner and we anticipate completion of this main reclamation initiative at the end of 2013."

supply chain management

Ensuring the contractors and vendors we hire are trained and certified to do their jobs safely and efficiently is a big responsibility.

Supply Chain Management

A company of the size and scale of TransAlta purchases millions of dollars worth of equipment, materials and services every year and we recognize that the standards we demonstrate through our procurement activities exerts a major influence – environmentally, economically and socially.

TransAlta has a number of policies and practices in place to ensure that the contractors and vendors we hire are fully qualified and meet our Environment, Health and Safety (EH&S) standards. Before working on our sites, contractors must complete safety orientation programs. To introduce more rigor into our safety screening, TransAlta engaged the services of ISNetworld in 2011, which provides an online database to certify vendors and automate the pre-screening process.

Martin Van Huyssteen, director, Supply Chain Management, says, "TransAlta is working to continually improve our supply chain management practices, and ensure that every company we do business with has the right credentials to perform work efficiently and safely on our sites."

TransAlta also has policies in place to encourage vendors, both large and small, to participate in competitive bids for contracts with our company. We recognize the importance of maintaining strong relationships with local businesses in the areas where we operate, and believe that local communities should benefit from our presence.

> TransAlta is working to continually improve our supply chain management practices, and ensure that every company we do business with has the right credentials to perform work efficiently and safely on our sites.

Martin Van Huyssteen
Director, Supply Chain Management

EVP Operations Hugo Shaw, and President and CEO Dawn Farrell with Larry Klem of E&S Mechanical, recipient of the 2012 TransAlta President's Award for overall safety performance of a contractor. For the past nine years, from outage to outage, E&S Mechanical has demonstrated an outstanding attitude and superb compliance to all of TransAlta's safety standards and procedures. While typically undertaking heavy, high-risk work, E&S Mechanical has not had a recordable incident in the past five years – which includes a total of 154,000 work hours.

ASK US

Q: How does the TransAlta Hydro Life Extension (LEXT) project contract that you've awarded to Andritz Hydro improve the sustainability of TransAlta's heritage Hydro fleet?

Gary Broadhurst, PEng
TransAlta, Key Account Manager
Andritz Hydro Canada Inc.

A: The LEXT project is enabling TransAlta's legacy hydro fleet to continue operating for another 40 years. This significant extension of facility lifespans allows us to supply 800 plus MW of capacity in Alberta for 40 years without building new facilities and by using the existing footprint. Andritz contributes to this through their strong history in hydro development and technical knowledge of this type of refurbishment project.

social performance

TransAlta cares. We work safely, promote employee health and wellness and support causes that make communities better places to live and work.

Bob Emmott, *Chief Engineer*
Bob is responsible for fleet major equipment lifecycle technical risk management and reliability engineering as well as ensuring TransAlta's quality assurance processes are best in class. Bob is also responsible for maintaining our corporate safety and environmental standards across all operations.

safety, health & wellness

TransAlta's employees and contractors achieved another record-setting Injury Frequency Rate (IFR) in 2012, delivering top quartile safety performance.

International Standards Guide EH&S Programs

Two internationally recognized standards provide the overarching framework in which TransAlta's Environment, Health and Safety (EH&S) programs are rooted. ISO 14001 is the International Organization for Standardization's Environment, Health and Safety standard and OSHA 18001 is a standard regulated by the U.S. Occupational Safety and Health Administration. Both standards provide assurance that a systematic, independently verifiable EH&S program is in place and effectively safeguarding employees, contractors and the public.

Bob Emmott, chief engineer, is responsible for all the major equipment across TransAlta's fleet, as well as for ensuring TransAlta's quality assurance processes are best in class and that corporate safety and environmental standards are being maintained.

He explains, "For some time, TransAlta has adopted best practices, which are manifested through the ISO 14001 and OSHA 18001 standards we've implemented. When we certified our Alberta Coal plants in 2006, we adopted these practices and have since rolled them out across our operations."

With TransAlta's recent restructuring process in 2012, the accountabilities that are embedded in EH&S policies are being closely examined. Bob explains, "Because we are moving to a plant-centric model, it's important to have a clear pathway to transfer what used to be centrally focused EH&S accountabilities and ensure there is an orderly transition of these into the business units." This process will continue throughout 2013.

Record-Setting IFR

TransAlta has been steadily improving safety performance, in alignment with our vision of being recognized as an EH&S leader in power generation by our employees, unions, customers, shareholders, regulators, suppliers and our communities of operation.

In 2012, we came even closer to realizing this vision with an annual Injury Frequency Rate (IFR) of 0.89, which matched our record-setting IFR performance in 2011. IFR is the number of lost time and medical aid injuries per 200,000 hours worked, and is a key metric used to evaluate the safety performance of industrial companies.

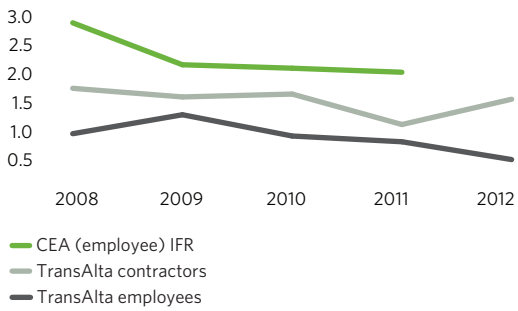
Bob says, "The IFR rate TransAlta achieved in 2012 is a clear demonstration that we have top quartile safety performance.

Centralia operator Bryant Bowman is "second checking" a Lock Out tag point, ensuring that the tag is in the correct position and that all energy is removed so that the workers can safely conduct their business.

It is a significant achievement, particularly because of the intensity of the work we had in our business during the past year, the overall industrial environment in which we work and the number of contractors who contribute to our efforts."

The improving trend in IFR performance is attributed primarily to a shift in the safety culture at TransAlta. Bob explains, "The key to strong safety performance is safety thinking. It's internalization of the belief that it is important for everyone who comes to work to return home safely every day. Policies and procedures are enablers, but it is the everyday attitudes that make the difference."

Recordable Injury Frequency Rate
(injuries/200,000 hours worked)



TransAlta achieved a combined annual injury frequency rate (IFR) of 0.89 in 2012, matching the same rate we achieved in 2011. IFR is the number of lost time and medical aid injuries per 200,000 hours worked. We benchmark our IFR against the Canadian Electricity Association (CEA). The CEA's employee IFR for 2012 was not available at the time of this report's production.

safety, health and wellness

Learn More transalta.com/sustainability/health-safety

0.50
employee Injury Frequency Rate in 2012

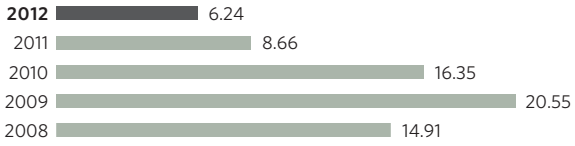
Falling Objects Prevention

In 2012, TransAlta introduced a falling objects prevention initiative to address what is one of our company's biggest safety concerns. Approximately 25 per cent of the significant incidents recorded over the past year involved falling objects. When tools or large pieces of heavy equipment or components come flying down from great heights, they can prove extremely dangerous or even fatal.

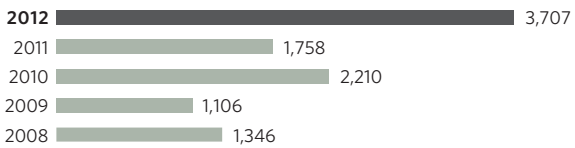
We've employed a variety of tactics to improve performance in this critical area, which includes implementing preventative practices such as ensuring tools and equipment are tied off and that netting and snow fences are used wherever possible. Pre- and post-gap assessment for height work is another measure, as well as the use of field level hazard assessment cards, which enable any employee to stop work if they believe there is a safety issue that must be addressed.

Promoting constant vigilance when performing work at heights is the other strategy for preventing drops. TransAlta has introduced a series of awareness tools, from an extensive "Stop the Drop" poster campaign to engagement with workers at tailboard safety meetings. The end goal is promotion of a culture where employees not only think about their own work, but how their work impacts – and could potentially affect – others.

Long-term disability rate (cases / 1,000 employees)



Short-term disability rate (days / 1,000 employees)



Employees across TransAlta participated in a variety of activities to improve their health and increase their daily step counts. This group of engineering employees at Alberta Coal went walking during their lunch hours around the plant site.

TransAlta's Amazing Race

Between June 4 and June 22, 2012, our employees participated in TransAlta's Amazing Race, the second annual event we've implemented to engage our entire fleet in a challenge that promotes healthier, more active lifestyles.

The race is based on the fundamental fitness fact that every step counts. All TransAlta employees were provided with a company-supplied pedometer to track their daily steps and challenged to a goal of 10,000 steps per day. Teams competed to achieve the highest number of daily steps, which were entered into the TransAlta Amazing Race Track, part of an online portal site. Prizes were awarded to the top individual and team counts accumulated over the three-week contest period.

Dawn de Lima, chief human resources and communications officer, says, "You'd be amazed at how a slight increase in physical activity can have a huge effect on a person's day-to-day life. Many employees said that their increased energy levels resulted in strong, positive impacts on their performances at work, their interactions with family and friends, and their general feelings of well-being."

human resources

TransAlta is creating a work environment that is positive, collaborative and that celebrates innovation, ingenuity and success.

Major Organizational Restructuring

TransAlta initiated a major restructuring process in 2012 – one that involved an executive-level review of every facet of our corporate framework. The impetus was to find a more efficient and effective way to run our company. It involved multiple decisions about where work should reside, as well as the levels of corporate support appropriate for each functional area. The outcome was a more business-centric model that pushes decision-making and responsibility out to individual business units.

As a result, in November 2012, TransAlta conducted a comprehensive workplace reorganization involving more than 980 employee moves. Many employees retained their existing roles, a significant number were redeployed into different parts of the organization and some employees whose roles no longer fit within the new structure, were let go.

Dawn Farrell, president and chief executive officer of TransAlta, explains, "Our principle of transparency was first and foremost when our decisions about employee reductions were finalized. We let all employees know what was happening and gave people time to absorb the information. We also used best practices to ensure that our process was as fair and respectful as possible – not only for those who left our company but for those who continue on with us."

In addition to providing timely training for leaders involved in the employee reduction initiative, TransAlta provided guidance and direction for those who left, by providing comprehensive outplacement services and support. Most companies typically experience higher employee attrition levels following an employee reduction process, however TransAlta's voluntary annual attrition rate in 2012 was 7.3 per cent, lower than it has been in previous years.

Shifting decision-making to the field and resetting accountability throughout the organization has put TransAlta on a new path to improving the long-term sustainability of our business.

TransAlta's leaders came together for a key development opportunity in 2012 to get inspired, learn and improve their overall leadership capabilities.

Enhancing Leadership

In 2012, Dawn Farrell brought 240 leaders together in a special leader event. The intention was to refocus the company under her leadership and create opportunities for peer-to-peer learning through interactive learning sessions designed to inspire, motivate and build collective leadership capacity.

Susanne Beaton, director, Talent Management, explains, "This is a core piece of leadership development at TransAlta. It provides the executive team with the opportunity to provide direction and clear expectations of leaders for the year ahead, as well as reinforcing the attributes of exceptional leadership." TransAlta plans to stage leader conferences on an annual basis, with programming customized to each year's key activities and challenges.

Total employee turnover rate (%)

Employees "released" as a result of the mine closure.

Turnover rate includes dismissals and voluntary leave for all full-time, part-time and contingent workers.

6.24

long-term disability rate in 2012 (lowest in 5 years)

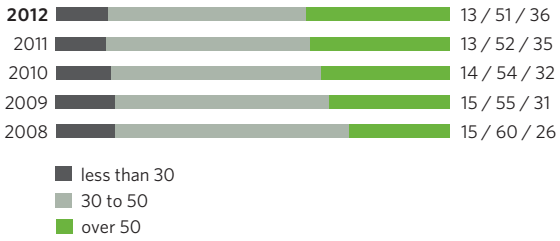
Technology Enhances Employee Onboarding

In 2012, TransAlta launched a new internal process designed to streamline the onboarding of new employees. Entirely automated and on-line, new employees now log into a portal that welcomes them to the company, with a welcome message from the CEO, and enables all pre hire paperwork be completed prior to their start date. This is the first of seven modules that will help attract and retain employees by providing tools to improve time to productivity and invest in employee development.

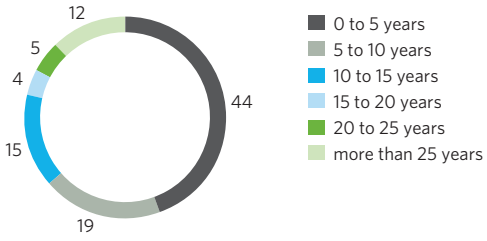
Dawn de Lima, chief human resources and communications officer, explains, "We lean heavily on technology to interface with employees right from the start. It demonstrates that TransAlta is a company that will leverage technology to make our working lives more seamless and introduces the new individual to our organization in a meaningful way."

In addition to streamlining the process from an administrative perspective, TransAlta's new onboarding process now enables new employees to be productive in their new roles within just a few days.

Employees by age (%)



Employees by years of service (%)



Social Media Strengthens Recruitment

The power of the Internet is helping TransAlta reach more potential recruits than ever before and is supplementing our active participation in university and professional career fairs. In 2012, TransAlta made search engine optimization a priority and enhanced the searchable status of our job listings on Google. TransAlta has also enlarged our presence on other key social media tools, including Twitter, LinkedIn and Facebook. With increased competition for employees, leveraging social media is a progressive way TransAlta can strengthen our reputation, create two-way dialogue and encourage graduates to consider the many benefits and possibilities that a career in the utility sector offers, on versatile platforms that are available 24/7.

Students visit TransAlta's booth at a University of Alberta career fair in January 2013.

community involvement

Wherever we operate, TransAlta is engaged. Our focus is on partnerships that promote family, health and wellness, education, and cultural enrichment.

The TransAlta Tri Leisure Centre

In 2012, TransAlta announced a 10-year sponsorship extension for the Tri Leisure Centre (TLC) in Spruce Grove, Alberta, representing a $1.9 million investment. The TLC is a community hub for Parkland County, the City of Spruce Grove and the Town of Stony Plain, and offers a wide array of recreational activities attracting two million visitors annually.

TransAlta offers our more than 800 employees who work in the area a discounted membership to the TLC, reinforcing our belief in the importance of active and healthy lifestyles.

Phil Zemliak, project manager at TransAlta's Sundance plant, says, "We use the Tri Leisure Centre as a place for busy families to meet and spend some quality time with each other and to participate in a multitude of activities."

Darren Badry, chairman of the TLC board of directors, Lou Florence, vice president of TransAlta's Alberta coal operations, Tri-area Mayors Rod Shaigec, Stuart Houston and William Choy celebrate the Tri Leisure Centre's 10-year anniversary celebration and new sponsorship extension.

Enhancing Culture

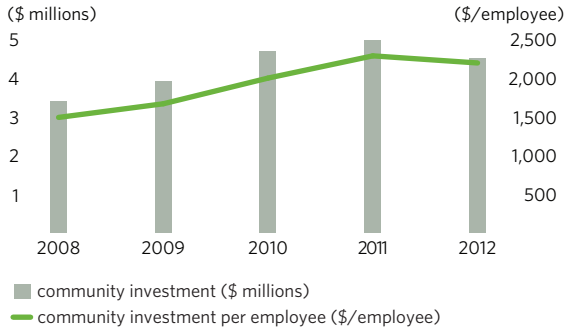
TransAlta supports a variety of cultural institutions that enrich lives and make cities more artistically vibrant. The Honens International Piano Competition is an excellent example, and an organization TransAlta has funded since 1995. We became lead sponsor of Honens Learning programs in 2010, bringing this world-renowned opportunity for outstanding young pianists to display their talents in high caliber competition.

Another respected cultural connection TransAlta has maintained for decades is the Calgary Exhibition and Stampede. Since 1997, TransAlta has proudly presented the brilliant Light Up the Night fireworks show, as well as provided funding for the Young Canadians and the Grandstand Show.

In 2012, TransAlta participated in a special, one-time event commemorating the Calgary Exhibition and Stampede's 100-year anniversary, called Light Up the City, the most sophisticated fireworks show in Canadian history. Light Up the City was staged in the four quadrants of Calgary, choreographed to music and timed to coordinate with the Stampede Grandstand Show.

Light Up the City was the largest and most sophisticated fireworks display in Canadian history. (Photo courtesy of the Calgary Stampede.)

Community Investment



community involvement

Learn More transalta.com/sustainability/community-investment

$4.5 million
invested in communities fleet-wide in 2012

Growing Support for United Way

TransAlta's employees responded enthusiastically to the 2012 United Way campaign, with increased participation rates and the second year of record-breaking campaign contributions. "Help Brighten Tomorrow" was the campaign theme and employees across TransAlta's fleet organized dozens of different fundraising activities, from kick-off breakfasts, barbecues and silent auctions, to cook-offs and Days of Caring volunteer events.

Hugo Shaw, executive sponsor of the United Way campaign and TransAlta's Executive Vice-President of operations, said, "I am very proud that our company-wide participation level was 42 per cent this year. Together, we raised over $820,000." TransAlta matches all employee donations, for a total gift of $1.6 million in 2012.

TransAlta Kinder Scholarship Eco Challenge

To commemorate the landmark agreement to shut down our Centralia, Washington, coal-fired plants in 2020 and 2025, TransAlta launched the Kinder Scholarship Eco Challenge in 2012, inviting 55 kindergarten classes in the Lewis County area to create projects that would environmentally improve their communities. Forty-two different classes (over 900 students) participated and the top 10 projects were selected. Each child in the selected class received a $2,500 scholarship for their future post-secondary education.

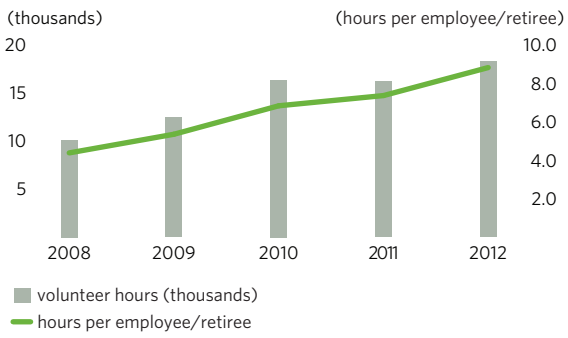
Mossyrock kindergarten students earned scholarship dollars by making their community a better place.

Alberta Winter Games Monument

TransAlta was a leading sponsor for the Alberta Winter Games in 2012 and as a legacy gift to commemorate the Games, a monument featuring a large boulder known as a glacial erratic, will be erected in Stony Plain. TransAlta employees were involved in transporting the massive glacial erratic.

The boulder weighs a staggering 24 tonnes (53,000 pounds) and contains quartz, feldspar and gneiss.

Volunteer hours



Volunteer hours do not include the many hours TransAlta employees contribute privately.

aboriginal and government relations

We proactively reach out and connect with First Nations communities and municipal, provincial and federal governments to build strong relationships.

A Unified Approach

TransAlta restructured our Aboriginal Relations and Government Relations functions in late 2012, uniting the previously separate departments into a single group. The move recognizes TransAlta's philosophy that our interactions with government, including self-governing First Nations communities, are more effectively directed from a central point within our company.

New Regulations on Coal Plants and GHGs

In 2012, the Canadian government announced new regulations for coal-fired plants, providing certainty regarding performance standards as well as on the length of time existing coal plants may operate before they must meet lower greenhouse gas emissions standards. The new regulations provide stringent requirements for environmental performance balanced by considerations of impacts on electricity prices and supply reliability. This balance is achieved by providing the flexibility to manage emissions reductions across several plants in certain situations, rather than on a strict plant-by-plant basis.

Throughout 2011 and 2012, TransAlta worked with coal-fired generators across the country to engage in conversations with provincial and federal governments concerning the proposed new coal-fired plant emissions regulations.

Ryan Schmidt, director, Aboriginal and Government Relations, says, "We worked in a very collaborative manner with Canada's coal-fired generators to engage both levels of governments on this important regulation. It was clear that the provincial government's support and the federal government's willingness to listen to stakeholders created a regulation that achieved the right balance between environmental and economic considerations."

The new regulatory regime provides generators like TransAlta with a firm framework to effectively deploy capital across their generating fleets and to meet the new emissions standards in the way that will minimize the impact on consumers. The flexibility provided in the regulations will also help generators protect existing investments in their assets, protect jobs in the sector and guide the transition to a lower carbon future in a less economically disruptive manner.

> We really want to be enablers of capacity building for our Aboriginal partners. Together, we look at education, economic development and social issues and find creative ways to work together to deliver results that make a difference.

Janet Janvier
Senior Aboriginal Relations Advisor

Collaborating with First Nations

TransAlta owns transmission lines that cross the reserve lands of over 13 different First Nations. To successfully maintain relationships and foster a regular exchange of information, TransAlta created the Transmission Advisory Group in Alberta. Along with AltaLink, we conduct regular meetings with representatives of these First Nations communities, providing information about our planned maintenance activities and receiving feedback about how we conduct our programs. TransAlta also continues to seek new opportunities to work with First Nations towards mutually beneficial agreements in support of business development.

On National Aboriginal Day graduates Karley Rosowsky (left) and Nicole Bastien (right) pose with the 2012 Stampede Indian Princess, Amelia Crowshoe, after being gifted Pendleton blankets by President and CEO Dawn Farrell, and Chief Human Resources and Communications Officer, Dawn De Lima.

20 Aboriginal students

received funding from TransAlta to attend post-secondary and trades studies in 2012

In addition, we look for ways to give back. Senior Aboriginal Relations Advisor, Janet Janvier, explains, "We really want to be enablers of capacity building for our Aboriginal partners. Together, we look at education, economic development and social issues and find creative ways to work together to deliver results that make a difference."

Capacity building is expressed in many different ways with our First Nations partners. For example, TransAlta has supported the Mother Earth's Children's Charter School's capital purchase project. We also fund a hot lunch program as well as numerous other community interest programs with the Paul First Nation. TransAlta has also been a regular supporter of the Stoney Nation's charitable golf tournament and its fundraising initiatives, which in 2012 provided funding for a new school playground. TransAlta also maintains a significant benefits agreement with Paul First Nation which focuses on education, economic development and community social programming.

One of the most significant and long-term programs we have developed is the TransAlta Aboriginal Bursary Program which supports up to seven $3,000 bursaries to Aboriginal students attending full-time college or university programs and up to three $1,000 bursaries for those in full-time trades programs. TransAlta also annually funds up to 10 separate scholarships to the Paul First Nation, scholarships through Keyano College and an endowment program at Mount Allison in New Brunswick.

In 2012, TransAlta was delighted to recognize the first group of graduates who have participated in our revised bursary program: Nicole Bastien graduated with a Bachelor of Social Work from the University of Calgary; Karley Rosowsky graduated with a Juris Doctorate from the University of Calgary; and Neill Fox graduated with a Bachelor of Science focusing on Neuroscience from the University of Lethbridge. TransAlta recognized their outstanding efforts during our National Aboriginal Day celebration and is proud to have played a role in furthering their career aspirations.

Learn More transalta.com/communities/aboriginal

National Aboriginal Day Celebrations

For the past three years, TransAlta has celebrated National Aboriginal Day with a series of events designed to instill greater awareness of and appreciation for Aboriginal cultural traditions. In 2012, June 21st kicked off an entire week of events, which included an Aboriginal awareness training seminar, the screening of informative videos about Aboriginal issues, featuring Aboriginal foods like buffalo burgers and Saskatoon berry tarts in the employee cafeteria, and a performance by Sandra Manyfeathers and her Aboriginal dance troupe in the main lobby of TransAlta's corporate headquarters. All of these initiatives help TransAlta employees better understand current Aboriginal issues and provide valuable context for guiding our ongoing interaction with First Nations communities.

Sandra Manyfeathers and her Aboriginal dance troupe performed in TransAlta's main lobby as part of TransAlta's National Aboriginal Day celebrations.

our involvement

TransAlta's strength comes from the knowledge and commitment of our employees, and is partly a result of the many industry and community initiatives employees make time in which to participate, every day.

Our employees are also actively engaged in numerous research initiatives and industry associations, including the following:

- Alberta Bat Action Team
- Alberta Chamber of Resources
- Alberta Ecotrust
- Alberta Innovates
- Alberta Water Council
- Association of Power Producers of Ontario (APPrO)
- Association of Washington Business
- Australian Institute of Energy
- Banff Aquatic Ecosystem Advisory Group
- Bluewater Community Advisory Panel – Ontario
- Bluewater Sustainability Initiative – Ontario
- Bow River Basin Council – Alberta
- Calgary River Valleys
- Canadian Clean Power Coalition (CCPC)
- Canadian Dam Association
- Canadian Electric Utilities Project Management Network
- Canadian Embassy in Australia
- Canadian Industry Recycling Coal Ash (CIRCA)
- Canadian Wind Energy Association (CANWEA)
- Center for Energy Advancement through Technological Innovation
- Centralia College
- Chambers of Commerce in all jurisdictions
- Clean Energy British Columbia
- Community Awareness and Emergency Response Organization (Sarnia)
- Community on Keephills Environment – Alberta
- Construction Owners' Association of Alberta
- Ducks Unlimited
- Edison Electric Institute
- Energy Environment Research Centre of North Dakota
- Fisheries Enhancement Society of Alberta
- Friends of Kananaskis Country
- Inside Education
- Institute for Sustainable Energy, Environment and Economy (ISEEE)
- Integrated CO_2 Network consortium (ICO_2N)
- International Emissions Trading Association
- Keephills Power Project Steering Committee
- Lewis County Economic Development Council – Washington
- Lower Kananaskis River Users Association (LKUA) – Alberta
- Medicine Hat College
- Mount Royal University
- North Saskatchewan Watershed Alliance – Alberta
- Northern Alberta Institute of Technology (NAIT)
- Pew Center on Global Climate Change
- Regional Development Australia (Goldfields/Esperance)
- Rocky Mountain Elk Foundation
- Sarnia Lambton Environmental Association (SLEA)
- St. Lawrence College
- The Banff Centre – Aboriginal Leadership Scholarships
- Trout Unlimited
- University of Alberta
- University of Calgary
- University of Lethbridge
- University of Western Australia

economic performance

TransAlta delivers. We have streamlined our operating structure, and are committed to achieving strong availability, productivity and profitability goals.

Gary Woods, *Director, Gas Operations*
Gary Woods is responsible for the safe and effective operations of TransAlta's gas fired assets in Canada. He started with TransAlta in 1999 as an operations shift supervisor at the Wabamun plant, and has since had roles of increasing responsibilities ranging from plant manager to Director of operations in both the coal and gas fired businesses.

rebuilding Sundance Units 1 and 2

Intense planning is supporting the massive rebuild effort at Sundance Units 1 and 2, targeted for completion in fall 2013.

TransAlta's Sundance generating facility is the largest power plant in Western Canada, with 2,126 MW of capacity and six units in total. In December 2010, TransAlta shut down Units 1 and 2 to protect the safety of employees after testing, analysis and consultation with independent experts. This resulted in a force majeure event and the issuing of a notice of termination to service. The PPA Buyer and Balancing Pool rejected the force majeure claims and the matter was referred to binding arbitration.

In July 2012, an independent arbitration panel validated TransAlta's claim of force majeure substantiating that TransAlta is a good operator and operated these units in accordance with industry standards. The panel did not agree with TransAlta's claim to terminate the PPA for economic reasons and ruled that the units be returned to service. As a result, TransAlta began an intense planning effort to rebuild the Sundance boilers. Targeted start-up for the units is fall 2013 at an estimated cost of $190 million.

In order to return these units to service, TransAlta will replace the water walls on both units, complete a major maintenance outage on Unit 2 and reintegrate the units into the Sundance plant. Darcy Wagner, project manager, Engineering and Construction, explains, "Our primary focus is to repair and restore the facilities to operation with a diligent attention to safety while adhering to the project's schedule and budget."

The overall scope of the Sundance 1 and 2 project is immense and in order to achieve success in all phases of the project it will take cooperation and collaboration. This has resulted in the project team doing things a little differently to drive cost savings and efficiencies. Darcy says, "A great example of this is hiring the plant operations team early in the project, resulting in reduced contractor costs while allowing the team to become very familiar with the plant from the ground up."

Many of the staff hired for the project will continue to fulfill ongoing operating and maintenance roles at the units once they are up and running, creating further opportunities to leverage what was learned throughout the rebuild.

Having the facilities back on line means TransAlta will recover 560 MW of generating capacity and begin generating cash flow from the units in the fall of 2013.

Leonard Sanche, Brittany Cross and Wade Vollrath, Sundance Operations, Maintenance and Safety personnel represent some of the key teams who are working together to bring Units 1 and 2 back online.

re-contracting Centralia

TransAlta won a competitive bid to supply power to Washington's Puget Sound Energy, boosting our re-contracting efforts at the Centralia plant.

New Puget Sound Energy Contract

TransAlta's efforts to re-contract our Centralia generation facility advanced in 2012 with the July 25th announcement that a power purchase agreement (PPA) was reached with Puget Sound Energy, one of Washington State's oldest electrical utilities. The company has about 1.1 million commercial and residential customers.

TransAlta was selected during a competitive RFP process and Puget Sound Energy will begin purchasing 180 MW of firm, base-load coal transition power from Centralia in December 2014. From December 2015 through December 2016, the contract increases to 280 MW; from December 2016 to December 2024 the contract is for 380 MW per year; and, in the final year, the contract volume is 300 MW.

Balancing Energy and Economics

"This agreement with Puget Sound Energy provides their customers with a stable-priced, low-cost source of power, while advancing our goal of contracting the output of the facility," says TransAlta USA President, Paul Taylor, adding, "And this agreement also balances, in the long-term, the priorities of providing reasonable energy costs with the environment."

In addition to offering competitively-priced power, TransAlta's Centralia facility is favourably situated on the west side of the Cascade Mountain Range, close to where most of the region's physical electricity load is consumed. Centralia also features some $300 million in emissions control technology designed to lower mercury and particulate emissions, and TransAlta recently opened an office in Olympia, strengthening its presence in the area.

A Progressive Transition Plan

Another big reason for TransAlta's successful bid is the progressive transition plan now in place that enabled us to participate in the Puget Sound RFP – a plan designed to phase out coal-fired power generation without unduly disrupting the local economy. The Washington State Legislature voted in 2011 to approve Senate Bill 5769, which will shut down one of Centralia's two coal-fired boilers by 2020 and the other by 2025. As part of this agreement, the Bill allows us to enter into long-term contracts with Washington utilities, and exempts Centralia from additional greenhouse gas emissions operating limitations to the end of its life in 2025. The Bill also provides expedited permitting for the large-scale natural gas plant we plan to develop at Centralia to replace the coal-fired facilities.

Local environmentalists supported the PSE contract. Bruce Nilles, Senior Director of the Sierra Club's Beyond Coal Campaign said, "We applaud Puget Sound Energy for working with TransAlta to transition Washington State off of coal and, in the process, assist Lewis County and the workers to make the transition onto clean energy."

Washington State Governor Chris Gregoire, said, "I'm delighted that TransAlta and Puget Sound Energy came together to help advance the state's goal of replacing coal-fired power and helping our state move toward more environmentally-sustainable energy."

Protecting Local Livelihoods

As part of a memorandum of agreement signed with the State, TransAlta is contributing to fund economic development and community transition efforts in the Lewis County region near the Centralia generation facility. TransAlta recognizes that our operations are a major source of employment in the local area. While market conditions in 2012 continued to be challenging, and the Centralia facility did not operate at full capacity, TransAlta took steps to realign work internally, which reduced layoffs and kept a significant workforce at the facility.

A conceptual drawing of the future TransAlta Commons building to be built on the Centralia College campus, which reflects our commitment and focus to strengthen the community where our employees live and work.

operational excellence

We continually look for ways to improve the performance of our operating fleet and conduct carefully planned uprates and outages to optimize our facilities.

Keephills Units 1 and 2 Uprates Completed

The ability to produce more electricity with the same amount of fuel burn and labour drives efficiency and profitability across TransAlta's operating fleet.

Increasing the output or megawatts of a generating unit is referred to as an uprate and in 2012, TransAlta conducted uprates at our Keephills coal-fired generating units 1 and 2, which are located 70 kilometers west of Edmonton, Alberta.

Jerome Campbell, plant manager, Keephills 1 and 2, explains, "The uprate process begins with design and collaboration with the original equipment manufacturer (OEM), who creates a more efficient section of the turbine that will enable the uplift of the megawatts. The installation of new turbine components into existing machines is exacting work and is done to extremely tight tolerances."

The uprates were completed as part of a large-scale maintenance outage involving a total of 95 days, more than 900,000 work hours and 670 people on-site during peak execution across both Keephills units. Completion of the uprate included the installation of new rotors and new inner cylinders, a new generator rotor and major generator stator work. Extensive work was also performed on facility boilers, to recertify them for operation.

The turbine rotor during the Keephills uprates. The uprates were completed as part of a large-scale maintenance outage involving a total of 95 days, more than 900,000 work hours and 670 people on-site during peak execution across both units.

TransAlta invested approximately $48.5 million on the uprates and increased the Keephills plant capacity to net 792 MW.

Poplar Creek Power Station Outage Sets Record

TransAlta has owned and operated the Poplar Creek Power Station (PCPS) co-generation facility since 1999, when it was built to support the energy needs of the Suncor oil sands facility near Fort McMurray in northern Alberta. In 2012, the 365 MW plant underwent a major maintenance outage that was completed safely and in the record time of just 26 days, achieving an internal milestone at TransAlta.

Periodically, generating facilities need to be taken out of service so that maintenance and upgrades can be performed, with varying degrees of intensity. The PCPS's 2012 outage involved a C-level inspection, which required full teardown of the turbine, testing of the rotor and stationary blades, and internal inspection of the heat recovery boiler, in addition to plant-wide inspections, condition assessments and general repairs.

Doug Sabine, manager of PCPS, attributes the success of the 2012 outage to a dedicated outage team, solid preparation and safe persistent execution. He says, "The TransAlta Planning Process (TPP) is a well-established and rigorous standard that gives each project a backbone and keeps it on track. We also perform internal readiness reviews that are vital to our process."

In addition, plant/outage management teams worked closely with a major contractor to assemble the overall outage team and collaborated with their design engineers and technical advisors to provide a third-party, objective review of the outage work plans.

While the outage was originally scheduled for 31 days, the overall outage team of 60 to 85 workers who were onsite everyday were able to complete the 50,000 person hours of work in just 26 days.

Doug Sabine says, "Our ability to come back online several days early means a lot to our commercial customer and we're pleased that we were able to do so in a safe and efficient way."

compliance and trading

TransAlta views compliance as a positive factor that helps us to be more responsive and strengthens our social license to operate.

Managing Risk

At any given moment, multiple variables influence the price of electricity across the continental electricity grid, including weather, generating unit outages, changes in load factors, fuel prices, and supply and demand balances. The complex, interconnected nature of these factors requires a well-run trading operation to keep these risks in check.

In 2012, TransAlta initiated a program to enhance the risk systems that guide our energy trading operations. It involved a close examination of our risk tolerances and a comprehensive review of our compliance measures, to ensure we remain fully compliant with market rules and the expectations of regulators. The program also examined the basic premise behind our energy trading function, which is, first and foremost, to maximize the value of our assets in the marketplace.

> We are taking a back to basics approach to our business philosophy and performance goals for our trading group. We are focused on driving our bottom line while maintaining a low-to-moderate risk profile. Our enhanced risk program is integral to keeping us focused on this task.

Rob Schaefer
Executive Vice-President, Trading and Marketing

Rob Schaefer, Executive Vice-President, Trading and Marketing, explains, "We are taking a back to basics approach to our business philosophy and performance goals for our trading group. We are focused on driving our bottom line while maintaining a low-to-moderate risk profile. Our enhanced risk program is integral to keeping us focused on this task."

New control mechanisms were introduced, such as setting tighter authority limits for individual traders and trading desks. New, more stringent review processes were also put in place to facilitate closer management scrutiny of trading on a weekly or more frequent basis. In addition, TransAlta invested in new technologies in 2012 to enhance both the efficiency and transparency of our energy trading activities.

Strengthening Compliance Capacity

In 2012, TransAlta followed up on a number of policies and activities designed to strengthen compliance throughout our organization. This included engaging an independent auditor, KPMG, to audit our compliance programs and provide recommendations to reinforce our internal compliance regime.

One of KPMG's key recommendations was to create a new officer position for our company focused on compliance. TransAlta was pleased to welcome John Kousinioris in December 2012, as Chief Legal and Compliance Officer.

Since joining TransAlta, John – working with Rob – has led an effort to enhance TransAlta's compliance program. This work is expected to be completed by mid-2013. While the enhancements were scheduled over the course of a year, a series of quick-hit enhancements were made to immediately improve our program. These included trading activity reviews, the implementation of trading limits, and more comprehensive oversight and transaction monitoring.

John says, "It's all about setting the tone for compliance at TransAlta. The more proactivity and leadership we exhibit from a compliance perspective, the better we'll be as operators and traders. We'll make better, more informed, ethical decisions. We view compliance as a positive factor that helps us be more effective and responsive, and strengthens our social license to operate."

From left to right: Daryck Riddell, Paula Ohreen, Carolyn Dahl Rees, John Kousinioris, Jean Sun, and Emma Coyle are just some of TransAlta's employees focused on strengthening compliance across the company.

our customer focus

Learn More transalta.com/customers

TransAlta's scale and diverse experience enable us to deliver full service energy solutions that meet the long-term needs of our customers.

Building Our Customer Base

TransAlta continues to build our direct connection with the end use customers for our products and services. We offer our customers competitive pricing through direct access to the wholesale electricity market, product offerings customized to fit customer needs, (flexible contract terms, efficient load settlement) and customized billing, reporting and analysis. All of these tools are designed to enable customers to get the most from their energy purchases. As we look to the future, with long-term PPA contracts coming to an end at several of our generating facilities, having a solid base of customers with whom we can contract will add greater certainty to our cash flows. We have a diverse customer population, comprised primarily of businesses and institutions that consume more than 250,000 kWh of electricity and/or 2,500 GJ of natural gas annually. In 2012, we grew our end use customer contracted megawatts base by 22 per cent.

TransAlta's generating portfolio includes about 25 per cent renewable energy, including wind, hydro and geothermal assets which have earned Clean Energy Council (CEC) Certified Accreditation. We offer a Green Energy® product category that makes it easy for customers to purchase Renewable Energy Credits, as well as offsets that are part of the Alberta Specified Gas Emitters Regulation. Energy management and asset optimization is another part of our product portfolio that continues to grow. These services provide asset owners and energy managers with the ability to mitigate risk more efficiently, increase optimization and operational needs while leveraging TransAlta's economies of scale and expertise.

Empowering Our Customers

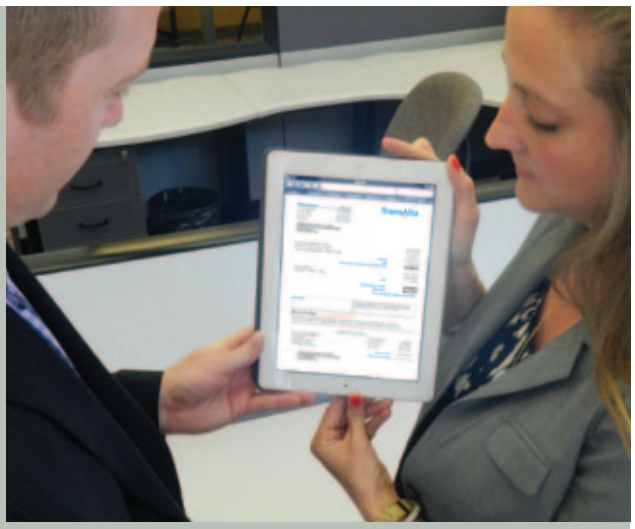
One of the ways TransAlta is striving to improve the level of service we provide customers is through our efforts to make their data more accessible and the associated reports more meaningful to them. TransAlta's commercial and industrial customers are able to run reports on their electricity use, download their own invoices and review the status of their payments, all available online.

Mike Potter, manager, Customer Development, explains, "We recognize that every customer is unique and has specific data and timing requirements. That's why we are focusing on enabling our customers to easily access the information they require. Empowering our customers with information means they have the tools they need to make educated decisions about their business. TransAlta is continually looking for ways to enhance our customer's experience."

Creating A Better Bill

One of the customer-facing initiatives TransAlta successfully completed in 2012 involved the redesign of our invoices. Kate Lovely, manager, Customer Solutions, explains, "We reached out to a number of our customers and solicited their feedback on the look and feel of our invoices. We then took that information and applied it to the redesign."

TransAlta's new invoices provide a clearer distinction between a customers' energy purchases and regulated distribution and transmission costs, making it easier for customers to understand. The new invoices also provide clearer information for clients with multiple operating sites.



Kate Lovely, manager, Customer Solutions, demonstrates to Mike Potter, manager, Customer Development, how the new invoices display on a mobile tablet.

about this report

Our Report on Sustainability is an open book with the singular purpose of providing clear and comprehensive coverage about TransAlta's sustainability practices, progress and performance.

As a progressive power generation company, TransAlta is producing more electricity with less impact. Through increased development of new technology and the expansion of all available power sources, we are helping meet the growing demand for clean, reliable and competitively priced electricity.

Putting the commitment, expertise and active involvement of our people and our stakeholders at the core of our day-to-day business and strategy development is having a profound impact on our success and approach to sustainability.

We are making changes to improve our business, maintain our operational excellence, target better forms of generation and mitigate our impacts on society. And, ever conscious of our responsibility to the places where we live and work, we are ensuring a mindset of stewardship guides our every step.

TransAlta is, without question, a better company for the steps we have taken. But being better is as much a journey as it is a destination.

In the preceding pages, we have asked our people to share our achievements, our challenges and the context for our sustainability performance in 2012. The following section examines the facts and numbers behind the sustainable growth TransAlta strives for every day.

About This Report

We provide regular reports on our progress; our 2012 Report on Sustainability is our 19th annual report and was produced in May 2013.

This report follows the intent of the Global Reporting Initiative (GRI) G3 Guidelines. The GRI is an independent, multi-national and multi-stakeholder organization representing business, the environment, labour and human rights issues. By reporting in the spirit of the GRI, we are able to ensure we provide accurate, consistent, credible and transparent reporting that is comparable to other leading sustainable organizations.

A long-time leader in sustainability reporting, TransAlta has been annually reporting on our performance since 1994.

6 consecutive years

of independent assurance verifications on our sustainability reports

Reporting on What Matters

The topics and indicators in this report have been selected according to an extensive iterative process that included:

- Interviews with a diverse range of TransAlta employees as well as several people external to the company, selected to represent key stakeholder groups;
- Continual review of emerging issues in sustainability by our Sustainable Development team;
- Identification of material risks to the organization through our comprehensive enterprise risk management process;
- Indicators and issues that are tracked and reported internally;
- Involvement in numerous external policy groups and task forces that identify key challenges for our industry at all of our locations;
- Social and environmental responsibility investor reports and indices; and
- At a minimum, information and data that is deemed significant and that requires reporting by regulators and industry associations.

Inclusion Principles

This report covers the calendar year ending December 31, 2012, though in some instances we have also included significant events from early 2013. All dollar amounts are in Canadian funds unless otherwise noted.

We report environmental data for power plants for which TransAlta holds the operating permit, regardless of financial ownership. We report on the health and safety aspects of all TransAlta operated facilities where the employees and contractors are hired by TransAlta.

The following facilities are not reported in this statistical summary because TransAlta does not hold the operating permits, but may be reported in TransAlta's 2012 Annual Report (available at www.transalta.com) with respect to financial performance: Genesee 3, Alberta; Imperial Valley geothermal assets, California; Power Resources Inc., Texas; Sheerness plant, Alberta; Yuma plant, Arizona; Wailuku, Hawaii; and Saranac, New York.

The following facility's environmental performance is not included in this statistical summary but the health and safety indicators reflect the performance of TransAlta employees and contractors onsite: Poplar Creek Power Station, Alberta (operating permit not held by TransAlta).

Megawatt hours used to calculate environment, health and safety data in this report differ slightly from electricity production reported in our 2012 Annual Report due to the exceptions noted above. Reporting of financial performance in this report is based on the proportion of financial ownership and the scope is consistent with our 2012 Annual Report, regardless of the exclusions cited above.

Reporting Entity

We report our activities corporately and by country. Country indicators can be found on our website. We cover direct operational impacts and do not include supply chain impacts such as emissions from product suppliers.

Reporting Scope

We discuss achievements that result directly from our actions. We report performance frequently through totals and ratios. We use total emissions to show environmental impacts. We use emissions intensity rates (for example, emissions per megawatt hour) to measure our operations' efficiency in controlling emissions.

Reporting integrity

We collect data on various parameters from our facilities in the areas that we operate. The data presented in this report is gathered from the subject experts at those facilities in a standardized template with set methodologies and uncertainty factors at the end of each year. All data is reviewed by the subject expert and is entered into a corporate database where the data is again reviewed for accuracy and comparability to previous year's data and similar operations data by an independent internal data manager. When anomalies in data are detected, the data manager seeks clarification and explanation for the anomaly and notes are made on the results of the follow-up.

Ernst & Young conducted a limited assurance engagement* in relation to selected key performance indicators for the year ending December 31, 2012. Details of the scope and conclusions of the assurance engagement can be found in the Independent Limited Assurance Statement found on page 42.

Greenhouse gas emissions for our Alberta Coal Plants (Sundance and Keephills), Highvale Mine, and Fort Saskatchewan cogeneration plant are externally verified annually, to a reasonable level of assurance, as required by under the Specified Gas Emitter's Regulation. The 2012 annual compliance reports submitted March 31, 2013 were audited by Ernst and Young.

**Procedures in a limited assurance engagement will be deliberately more limited in nature, timing or extent than in a reasonable assurance engagement.*

independent limited assurance statement

To the Board of Directors and Management of TransAlta Corporation ("TransAlta")

Our Responsibilities
Our limited assurance engagement has been planned and performed in accordance with the International Standard on Assurance Engagements ISAE 3000 "Assurance Engagements other than Audits or Reviews of Historical Financial Information".

Subject Matter
We have performed a limited assurance engagement on the following quantitative sustainability performance indicators that are presented on page 43 to 46 of the TransAlta Report on Sustainability ("the Report") for the year ended December 31, 2012:

- Sulphur dioxide emissions and emission intensity
- Nitrogen oxide emissions and emission intensity
- Particulate matter emissions and emission intensity
- Mercury emissions and emission intensity
- Carbon dioxide emissions
- Methane emissions
- Nitrous oxide emissions
- Total transportation greenhouse gas emissions
- Gross greenhouse gas emissions and emission intensity
- Employee and contractor fatalities
- Injuries to employees and contractors
- Employee and contractor injury frequency rates
- Community investments

Criteria
TransAlta has prepared its specified performance information in accordance with the GRI G3 Guidelines, industry standards and where relevant, internally developed criteria.

TransAlta Management Responsibilities
The Report was prepared by the management of TransAlta, who is responsible for the collection and presentation of the performance indicators, statements, claims in the Report and the criteria used in determining that the information is appropriate for the purpose of disclosure in the Report. In addition, management is responsible for maintaining adequate records and internal controls that are designed to support the reporting process.

Level of Assurance
Our procedures were designed to obtain a limited level of assurance on which to base our conclusions. The procedures conducted do not provide all the evidence that would be required in a reasonable assurance engagement and accordingly, we do not express a conclusion conveying a reasonable level of assurance. While we obtained an understanding of management's internal processes when determining the nature and extent of our procedures, our limited assurance engagement was not designed to express a conclusion on internal controls.

Work Performed
In order for us to express a conclusion in relation to the above scope of work, we have sought to answer the following questions for the performance indicators reviewed:

Completeness
- Has TransAlta fairly presented performance information concerning the selected performance indicators with respect to the boundaries and time period defined in the Report?
- Has TransAlta included sustainability performance information from all material entities in its defined boundary for its reporting of the selected performance indicators?
- Has TransAlta accurately collated corporate data relating to the selected performance indicators from operations level data?

Accuracy
- Is the data reported for the selected performance indicators sufficiently accurate and detailed for stakeholders to assess TransAlta's performance?

Our assurance procedures at TransAlta's corporate head office included but were not limited to:
- Interviewing selected personnel at Corporate and selected sites to understand the key sustainability issues related to the selected performance data and processes for the collection and accurate reporting of performance information
- Where relevant, obtaining an understanding of the design and implementation of systems and processes for data aggregation and reporting
- Checking key assumptions against the evidence to support the assumptions
- Checking the accuracy of calculations performed, on a test basis, primarily through inquiry, variance analysis and re-performance of calculations. and analytical procedures
- Checking that data and statements had been correctly transcribed from corporate systems and/or supporting evidence into the Report

Limitations of our Work Performed
Our scope of work did not include expressing conclusions in relation to:
- The materiality, completeness or accuracy of data sets or information relating to areas other than the selected performance data, and any site-specific information
- Information reported outside of TransAlta's 2012 Report on Sustainability
- Management's forward looking statements
- Any comparisons made by TransAlta against historical data
- The appropriateness of definitions for internally developed criteria

Our Conclusion
Based on our procedures for this limited assurance engagement described in this Report, nothing has come to our attention that causes us to believe that the Subject Matter is not, in all material respects, reported in accordance with the relevant criteria.

Ernst & Young LLP

Ernst & Young LLP
Calgary, Canada
May 29, 2013

performance indicators

Corporate-wide Statistics

Management Systems	2010	2011	2012
Facilities with ISO 14001 and/or OHSAS 18001-based management systems	29	29	**29**
Generation capacity with ISO 14001 and OHSAS 18001-based management systems *(%)*	94	96	**100**
Management system audits[1]	13	4	**9**
Compliance audits[1]	7	11	**6**

Environmental Performance	2010	2011	2012
Air Emissions[2]			
Sulphur dioxide *(tonnes)*	47,500	35,300	**32,600**
Sulphur dioxide emission intensity *(kg/MWh)*	1.16	1.06	**0.99**
Nitrogen oxides *(tonnes)*	60,700	41,700	**39,500**
Nitrogen oxides emission intensity *(kg/MWh)*	1.48	1.25	**1.20**
Particulate matter *(tonnes)*	5,000	3,700	**2,800**
Particulate matter emission intensity *(kg/MWh)*	0.12	0.11	**0.09**
Mercury *(kilograms)*	420	180	**120**
Mercury emission intensity *(mg/MWh)*	10.22	5.39	**3.66**
Greenhouse gas emissions[3]			
Carbon dioxide *(tonnes CO_2e)*	34,366,500	27,239,400	**26,310,000**
Methane *(tonnes CO_2e)*	163,300	146,900	**130,800**
Nitrous oxide *(tonnes CO_2e)*	225,200	171,900	**168,400**
CFCs *(tonnes CO_2e)*	0	36	**0**
Sulfur hexafluoride *(tonnes CO_2e)*	10	10	**10**
Total transportation greenhouse gas emissions *(tonnes CO_2e)*	105,600	106,200	**94,900**
Gross emissions *(tonnes CO_2e)*[4]	34,755,010	27,558,246	**26,609,210**
Gross emission intensity *(kg CO_2e/MWh)*	845	826	**810**
Land and Materials Management			
Land used in mining activities *(hectares)*	18,740	17,040	**17,300**
Land used by plants, offices and equipment *(hectares)*	3,130	3,736	**3,744**
Non-hazardous waste disposed *(tonnes)*[5]	1,280,500	849,400	**966,700**
Non-hazardous waste disposed *(L)*	82,400	54,600	**87,800**
Non-hazardous waste recycled *(tonnes)*[5]	4,000	25,200	**5,900**
Non-hazardous waste recycled *(L)*	898,600	593,600	**404,500**
Hazardous waste disposed *(tonnes)*	100	100	**54**
Hazardous waste disposed *(L)*	4,300	900	**1,500**
Hazardous waste recycled *(tonnes)*	0	40	**40**
Hazardous waste recycled *(L)*	0	457,130	**354,830**
By-product use *(% sold)*[6]	41	40	**34**
By-product use *(% stored)*[6]	59	60	**66**
Paper used *(tonnes)*	52	47	**55**
Paper recycled *(tonnes)*[7]	117	103	**91**
Land Use – Disturbed *(cumulative hectares)*	6,399	6,706	**6,610**
Land Use – Reclaimed *(cumulative hectares)*	4,393	4,549	**4,728**
Land Reclamation *(% of former land reclaimed)*[8]	40	40	**41**

0 environmental incidents

U.S. operations, in 2012

Environmental Performance (continued)	2010	2011	2012
Water[9]			
Total water intake *(million m³)*	338	213	**218**
Water intake – river *(million m³)*	233	210	**215**
Water intake – lake *(million m³)*	102	1	**1**
Water intake – purchased *(million m³)*	3	2	**2**
Water intake – other *(million m³)*	0	0	**0**
Total water discharge *(million m³)*	281	182	**186**
Water consumption *(million m³)*	57	32	**33**
Water consumption intensity *(m³/MWh)*[10]	1.40	0.94	**1.00**
Regulatory Performance			
General air regulatory contraventions	4	5	**1**
Spills to land regulatory contraventions	2	2	**6**
Spills to water regulatory contraventions	8	12	**8**
Other regulatory contraventions[11]	2	1	**0**
Administrative regulatory contraventions	4	1	**2**
Environmental enforcement actions[12]	8	4	**0**
Environmental fines *($ thousands)*	1.5	2.0	**0.0**
Spills			
Volume of significant spills *(m³)*[13]	0.1	2.4	**7.4**
Volume of significant spills recovered *(m³)*	0.0	0.0	**5.9**

Production	2010	2011	2012
Coal generation net ownership capacity *(MW)*	4,012	3,920	**4,498**
Natural gas generation net ownership capacity *(MW)*	1,266	1,211	**1,211**
Hydro generation net ownership capacity *(MW)*	887	913	**946**
Wind generation net ownership capacity *(MW)*	1,064	1,061	**1,061**
Total net ownership capacity *(MW)*[14]	7,229	7,105	**7,716**
Coal net generation *(MWh)*	29,572,000	22,922,000	**22,080,000**
Natural gas net generation *(MWh)*	7,787,000	5,738,000	**5,981,000**
Hydro net generation *(MWh)*	1,622,000	2,069,000	**1,961,000**
Wind net generation *(MWh)*	2,128,000	2,650,000	**2,810,000**
Total net generation *(MWh)*[15]	41,109,000	33,379,000	**32,832,000**
Resource Use			
Coal *(tonnes)*	17,631,000	13,257,000	**12,699,000**
Natural gas *(GJ)*	85,169,000	64,938,000	**67,377,000**
Diesel *(GJ)*	354,000	564,000	**425,000**
Total vehicular gasoline consumption *(L)*	1,395,499	1,399,110	**1,534,582**
Total vehicular diesel consumption *(L)*	37,746,524	38,044,626	**33,724,162**
Building operations energy usage – energy *(MWh)*	234,077	208,690	**197,946**
Building operations energy usage – natural gas *(GJ)*	59,280	77,684	**47,352**

90%
availability for 2012

Economic Performance	2010	2011	2012
Revenues *($ millions)*	2,673.0	2,663.0	**2,262.0**
Operating costs *($ millions)*	510.0	545.0	**493.0**
Comparable earnings *($ millions)* [16]	213	230	**118**
Comparable earnings per share *($/share)* [16]	0.97	1.04	**0.5**
Comparable EBITDA *($ millions)* [16]	963	1,045	**1,014**
Funds from operations *($ millions)* [16]	805	809	**776**
Income tax expense *($ millions)*	24.0	106.0	**103.0**
Providers of capital – Dividends (on common shares) *($ millions)*	319	194	**271**
Providers of capital – Interest *($ millions)*	142	197	**234**
Performance stock option shares *(share options)* [17]	2,200,000	1,700,000	**1,500,000**
Performance stock option shares *(weighted average exercise price)* [17]	24.94	25.10	**25.35**
Employee future benefits *($ millions)* [18]	308	299	**299**
Employee compensation *($ millions)*	288.5	272.6	**303.5**
Investment in Environment, Research and Technology *($ millions)* [19]	56.0	49.4	**63.3**

Social Performance	2010	2011	2012
Workplace Practices			
Number of Employees [20]	2,389	2,235	**2,084**
Number of Part-time Employees [20]	154	124	**99**
Number of Contingent Employees [20]	101	81	**78**
EH&S full-time equivalent employees [21]	65	56	**40**
Employees represented by independent trade union organizations *(%)*	1,069	935	**906**
Employee turnover rate *(%)* [22]	17	16	**19**
Number of employees leaving employment, male to female ratio [22]	3.22	3.34	**2.39**
Employee, age less than 30, turnover rate *(%)* [22]	30	25	**19**
Employee, aged 30 to 50, turnover rate *(%)* [22]	41	43	**45**
Employee, age greater than 50, turnover rate *(%)* [22]	29	32	**36**
Diversity			
Women in workforce *(%)*	21	23	**23**
Women in senior management *(%)*	20	28	**31**
Full-time employee positions in workforce *(%)*	89	91	**92**
Part-time employee positions in workforce *(%)*	6	6	**5**
Contingent employee positions in workforce *(%)*	5	3	**3**
Workforce under age 30	332	281	**280**
Workforce between ages 30 and 50	1,285	1,146	**1,065**
Workforce over age 50	769	768	**739**
Training and Development			
Health and safety training per employee *(hours/employee)*	8.8	8.4	**9.5**
Environmental training per employee *(hours/employee)*	–	–	**1.2**
Environment, health and safety training per employee *(hours/employee)*	8.8	8.4	**10.7**
% of non-unionized employees receiving performance reviews	100	100	**100**

8.66 volunteer hours

per employee (company-initiated)

Social Performance (continued)	2010	2011	2012
Health and Safety [23]			
Health and safety enforcement actions [24]	0	0	**0**
Health and safety fines *($ thousands)*	0	0	**0**
Employee fatalities	0	0	**0**
Injuries to employees	22	17	**11**
Employee injuries requiring absence from work	3	6	**4**
Employee recordable injury frequency rate *(injuries/200,000 hours)* [25]	0.91	0.81	**0.50**
Employee disabling injury frequency rate *(injuries/200,000 hours)* [26]	0.12	0.28	**0.18**
Contractor fatalities	0	0	**0**
Injuries to contractors	25	9	**20**
Contractor injuries requiring absence from work	5	1	**4**
Contractor recordable injury frequency rate *(injuries/200,000 hours)* [25]	1.64	1.11	**1.55**
Contractor disabling injury frequency rate *(injuries/200,000 hours)* [26]	0.33	0.12	**0.31**
Short-term disability rate *(days/1,000 employees)* [27]	2,210	1,758	**3,707**
Long-term disability rate *(cases/1,000 employees)* [28]	16	8.66	**6.24**
Reportable vehicle incidents	23	33	**34**
Community Relations			
Community investments *($ millions)* [29]	4.72	4.95	**4.50**
Community investments per employee *($/employee)*	1,980	2,260	**2,170**
Company-initiated volunteer hours per employee *(hours/employee)* [30]	6.83	7.33	**8.66**

For performance indicator information broken down by country, view the full Data file at www.transalta.com/sustainability.
Ernst and Young LLP has reviewed selected data as detailed in the Independent Limited Assurance Statement.
Please see "Discussion and Notes on Numbers" section for footnote explanations.

Kids help celebrate the groundbreaking of the all-volunteer project to build Pirate Nation Stadium in the community of Adna, Washington. TransAlta donated $300,000 toward the stadium construction, provided some of the equipment needed to build it, and many employees committed personal volunteer time.

systemic indicators

This page is intended to show our contribution to selected economic, social and environmental indicators in our national and regional operating areas.

Environmental Performance	Regional	National/International
CO_2	7.9% of Alberta's emissions 1.1% of Ontario's emissions	3.2% of Canada's emissions 0.1% of USA's emissions 0.0% of Australia's emissions
SO_2	9.6% of Alberta's emissions <0.1% of Ontario's emissions 0.8% of Washington's emissions	2.7% of Canada's emissions <0.1% of USA's emissions <0.1% of Australia's emissions
NOx	4.1% of Alberta's emissions 0.5% of Ontario's emissions 5.3% of Washington's emissions	1.8% of Canada's emissions 0.0% of USA's emissions 0.2% of Australia's emissions
Particulate matter	<0.1% of Alberta's emissions <0.1% of Ontario's emissions 0.8% of Washington's emissions	0.5% of Canada's emissions
Mercury	13.1% of Alberta's emissions 27.1% of Washington's emissions	2.0% of Canada's emissions

Economic Performance	Regional	National/International
Electricity production	34.0% of Alberta's production 3.4% of Ontario's production 3.2% of Washington's production	4.7% of Canada's production 0.1% of USA's production 0.6% of Australia's production
Electricity workers	7.9% of Alberta's electricity workers 0.4% of Ontario's electricity workers	1.3% of Canada's utility workers 0.1% of USA's utility workers

Social Performance	Regional	National/International
Ratio of TransAlta lowest wage to legal minimum wage	Alberta: 1.74 Ontario: 1.50 Washington: 2.41	USA: 3.06 Australia: 1.05

The regional and national mercury indicator represent total on-site mercury releases.

Sources: Environment Canada, United States Environmental Protection Agency, North American Electric Reliability Council, Alberta Energy and Utility Board, Statistics Canada, Canadian Electricity Association, United States Bureau of Labor Statistics, Ontario Ministry of Labour, Australian Council of Trade Unions, Energy Supply Association of Australia Limited, Alberta Human Resources and Employment, Washington State Department of Labor and Industries.

Regional and national data used for these comparative statistics may be lagging by several years. In all instances we have compared the appropriate historical TransAlta data to the year the regional or national statistic is available.

discussion and notes on numbers

TransAlta continually strives to improve the accuracy, precision and extent of our sustainability performance reporting to stakeholders.

We have reviewed our processes and controls relating to the measurement, calculation, consolidation and reporting of some of our key sustainability data. As a result, we may have revised some historical data to reflect these improvements. If you would like additional information on the nature of the changes for specific indicators, please contact us at **sustainability@transalta.com**.

Several footnotes appear throughout the statistical summaries and are intended to provide clarity on specific boundary conditions, changes in methodology and definitions.

1. *Represents the number of facilities that were audited during the year. In past reports, we reported the number of audits conducted in the year. We audit facilities simultaneously if we have several facilities in a region with one integrated Environment, Health and Safety (EH&S) management system.*
2. *Nitrogen oxide (NOx) emissions are expressed in tonnes of nitrogen dioxide.*

   The methodology used to calculate the 2010, 2011 and 2012 mercury emissions from the Sundance and Keephills coal-fired plants uses the capture performance monitoring results of the mercury control program. This improved methodology produces more accurate emissions than the method used historically. Mercury emissions from the Keephills 3 coal-fired plant are determined using a Mercury Analyzer Continuous Emission Monitoring System (CEMS). Numbers are as reported to government agencies.

   The Australia air emissions (NOx, SO_2, and PM) reported in the Data file on our website will differ from those reported under the National Environment Protection Measures legislation, due to specific reporting requirements.
3. *In keeping with the reporting format recommended by the Greenhouse Gas (GHG) Protocol, TransAlta reports the impact of each GHG separately. GHG's have been converted into tonnes of carbon dioxide equivalent (CO_2e), using global warming potential factors developed by the Intergovernmental Panel on Climate Change (IPCC).*

   We have revised historical corporate emission intensities and emission totals to reflect updated emission factors and improved calculation methodologies at some facilities. These updates are the reason for discrepancies between the data in this report and historical reports.

   The Australia greenhouse gas emissions reported in the Data file on our website will differ from those reported under the National Greenhouse and Energy Reporting Act, due to specific reporting requirements.
4. *With the implementation of mandatory GHG reporting in Canada and an anticipated Canadian climate change regulatory regime, as of 2003 TransAlta has not reported offsets, credits, net GHG emissions or net GHG emission intensities. TransAlta reports gross GHG emissions consistent with the requirements of federal and provincial reporting policies. We will continue to undertake emission reduction actions through international and domestic offset purchases and internal projects that have GHG benefits. In a compliance regime, these ultimately take the form of compliance instruments or credits used to meet reduction obligations and are, therefore treated as proprietary information.*
5. *Non-hazardous waste includes, but is not limited to, the disposal of water treatment chemicals, coal refuse (including ash by-products), paper, rubber, cardboard and building materials.*
6. *By-products include ash, gravel, gypsum and cenospheres.*
7. *Due to the tracking process at our head office in Calgary, Alberta, the quantity of paper recycled by TransAlta cannot be determined separately from other building tenants. This results in a quantity of recycled paper that is greater than that used.*
8. *Land reclaimed includes the percentage of mined land reclaimed at the Whitewood and Highvale coal mines at Wabamun, Alberta, and our surface mine in Centralia, Washington.*
9. *Total water consumed by TransAlta's operations as measured by total water removed from the environment and total water returned to the environment.*

   Water is used primarily for cooling by the thermal power plants and evaporative losses from the cooling ponds and cooling towers account for over 95 per cent of the consumptive use. The water lost to evaporation is not returned directly to the water body but the water remains in the hydrologic cycle. The amount of water used for domestic and boiler water usage amounts to less than five per cent of the total consumption.
10. *Due to the methodology used to calculate water intake and discharge, the consumption intensity tends to be overstated as these figures do not account for precipitation gains or evaporation and transpiration losses from our cooling ponds. These values are estimates only.*
11. *Other environmental regulatory contraventions are incidents that may impact the environment, but are out of the scope of air, land and water contraventions that require reporting to an external regulatory agency. Examples could include equipment failures and permit non-compliance.*
12. *Contraventions reported to an external regulatory agency and resulting in a fine, penalty or corrective action.*

13. *The substances released to the environment include, but are not limited to glycol, diesel, oils, and other chemicals.*

14. *The MW net capacity value reported on page 11 of the Report represents current operation capacity of all TransAlta facilities, including plants that we do not operate, but in which we have financial ownership. The values reported in the "Performance Indicators" represent the current net generation capacity of only those facilities in which TransAlta holds the operating approval.*

15. *Megawatt hours used to calculate intensity values in the "Performance Indicators" section of this report differ slightly from electricity production reported in our 2012 Annual Report due to the exceptions noted in the "Inclusion Principles" section of "About This Report".*

16. *These comparable items are not defined under International Financial Reporting Standards (IFRS). Presenting these items from period to period provides management and investors with the ability to evaluate earnings trends more readily in comparison with prior periods' results. Refer to the Non-IFRS Measures section of the MD&A in our 2012 Annual Report for further discussion of these items, including, where applicable, reconciliations to measures calculated in accordance with IFRS.*

17. *One of three stock-based compensation programs offered to TransAlta employees. The company grants stock options to employees based on the market price of the shares as determined on the date of the grant. Historic stock option share values have been updated per restatements in the 2012 Annual Report.*

18. *Includes TransAlta's registered pension plan with defined benefits and defined contribution options and a supplemental defined benefits plan. All employees have a future benefits plan, although the defined benefit of the pension plan ceased for new employees on June 30, 1998.*

19. *Includes all expenditures for environmental protection, such as environmental monitoring, pollution abatement, waste management and administrative costs. The increases of expenditures can be attributed to growth in site reclamation activities, pollution prevention and abatement technologies, and a focus on environmental protection and restoration of wildlife habitat.*

20. *Represents all TransAlta employees on December 31, 2012. For the purposes of this report, a contingent employee is defined as a retired consultant, a temporary employee or a term employee.*

21. *Accounts for all TransAlta employees who have full time Environment, Health and Safety roles. Each non-full time employee (part time or contingent) is the calculated equivalent of 0.70 full-time employees.*

22. *Turnover rate includes dismissals and voluntary leave for all full-time, part-time and contingent workers.*

    The number of employees leaving employment, reported as a male to female ratio, represents to the number of males who left the company, divided by the number of females who left the company.

    Turnover by age represents specific age ranges of employees who left the company as compared to total number of employees leaving employment during the reporting period.

23. *Corporate and Canadian health and safety data includes performance data from the Poplar Creek Power Station, as all employees at this site are TransAlta employees and contractors hired by TransAlta.*

24. *Health and safety incidents resulting in a regulatory enforcement action. Enforcement actions could take the form of a warning letter, fine or non-financial reprimand or restriction on operations.*

25. *The injury frequency rate (IFR) measures work-related medical aid and lost-time injuries per 200,000 hours worked. IFR is calculated using a combination of actual and estimated exposure hours. During the course of the year, all work-related safety incidents are investigated. These investigations may provide new information which would result in an incident being reclassified.*

26. *The disabling injury frequency rate is calculated based on the number of injuries requiring absence from work (lost-time incidents) only.*

27. *Reflects the number of days lost due to absenteeism from work, up to six months in duration. Absence may be due to work related incidents or injuries incurred outside of work.*

28. *Reflects the number of employees absent from work for more than six months. Absence may be due to work-related incidents or injuries incurred outside of work.*

29. *Community investments include all community donations and community sponsorships that were paid in the current year.*

30. *Volunteer activities organized by TransAlta such as volunteering during work hours as part of United Way campaigns. This does not include volunteer activities that employees and retirees engage in outside of their employment at TransAlta.*

Creative Development: One Design Inc.
Writing: Perspectives MGM Inc.
Original Photography: Roth and Ramberg Photography Inc.
and TransAlta Photo Library

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TransAlta™

How Are We Doing?

Send us your thoughts on our performance and reporting at:
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