

E f w

Energy from Waste  
A progress report.



Corporate  
Sustainability  
Report  
2009/2010

# Content

1	4	12	19	21	31	39	44
INTRODUCTION	ABOUT COVANTA	APPROACH	CORPORATE GOVERNANCE	ENERGY AND ENVIRONMENT	EMPLOYEES	COMMUNITIES	PERFORMANCE
2 Message from Anthony Orlando, CEO	5 Our North American operations	13 Our strategy for sustainability	20 Board structure	22 Covanta's approach to managing energy and environmental issues	32 Covanta's approach	40 Community engagement	44 Covanta Energy Corporation sustainability policy
3 About this report	6 How energy from waste works	14 Sustainability management	20 Ethics	24 GHGs and climate change	33 Health and safety	42 Environmental justice	45 Our performance
	7 Consistent generation of clean, safe power	15 Stakeholder engagement		25 Other air emissions	35 Workforce development	43 Looking ahead	46 GRI index
	8 Covanta's contribution to waste management in the United States	16 Focusing on material issues		27 Combined ash management	38 Diversity		52 Acronyms used in this report
	11 Opportunities for growth	16 Public policy development		28 Water management	38 Union representation		52 Cautionary note regarding forward-looking statements
				28 Land management			
				29 R&D: cleaner energy through innovation			

# To our stakeholders:

We believe that sustainability requires the wise deployment, use, and management of human, economic, and natural resources. Our ultimate goal is to enhance the long-term well-being of our company, society, and the planet as a whole.

In adhering to this vision of sustainability, we bring value to our stakeholders—our customers, partners, employees, communities, and investors.



At Covanta Energy Corporation, our long-term view on sustainability is one where the growth of our business is synonymous with environmental stewardship and a positive contribution to society.

In this, our first sustainability report, we discuss how Covanta is converting municipal solid waste, or MSW, to clean, safe, and renewable energy. Energy-from-waste (EfW) facilities are an important element of an integrated MSW system that maximizes recovery of energy and metals while also minimizing the environmental impacts of materials remaining after recycling. EfW is a superior alternative to landfills and provides a sustainable solution that reduces greenhouse gas (GHG) emissions, lowers the risk of groundwater contamination, and conserves land. At the same time, EfW generates reliable, clean, renewable energy from post-recycled waste, helping to reduce our dependence on fossil fuels.

Our mission is to be the world's leading EfW company in all respects. In pursuit of this mission, we have established our Clean World Initiative, a set of programs that go beyond compliance to help ensure that EfW continues to be one of the safest, most reliable and environmentally sound energy sources in the world.

Over the past decades we have learned how to maximize the value of post-recycled waste at EfW facilities that use a wide variety of combustion and air pollution control technologies. The typical EfW process extracts metals and

energy from waste while minimizing the release of emissions into the atmosphere. We have advanced the state of the art in both the design and operation of EfW facilities and can include the following successes as examples of our progress:

- **Providing client communities with reliable service by being on-line more than 99 percent of the time, thereby assuring safe waste disposal in a timely and effective manner**
  - **Maximizing energy recovery through the development of patent pending combustion processes**
  - **Minimizing environmental emissions through a company-wide program that includes a combination of technology and operating practices**
- While we have made great progress on our sustainability performance, there is still room for improvement. Some of our challenges include:
- **Finding ways to further improve our environmental and energy-generation performance**
  - **Controlling the emission variability at older plants we have acquired and otherwise strengthening emissions compliance**
  - **Partnering with others to demonstrate and promote EfW as a complement to recycling, a combination that has been successfully demonstrated in Europe and certain communities in the United States**
  - **Formalizing our stakeholder-engagement processes, with an emphasis on working with our municipal clients to establish programs to ensure that our operations are responsive to the community**

- **Expanding our reporting in future years to include quantitative goals and targets and to go beyond our U.S. and Canadian EfW operations, which we are addressing in this report, to cover other North American operations and our international operations**
- **Strengthening our financial performance and generating the cash flow needed to continue to grow our business and achieve our sustainability objectives**

To better manage and communicate our sustainability performance, we have assembled a panel of sustainability experts that represent a broad spectrum of Covanta's stakeholders. We are grateful for their advice and counsel regarding our ongoing efforts.

I invite policymakers, advocates, environmental organizations, scientists, employees, and interested citizens to discuss with us how we can perform even better than we do today and to help us realize our vision for a more sustainable tomorrow.

Sincerely,

Anthony Orlando  
*President and Chief Executive Officer*

# About this report

This is Covanta's first sustainability report. It covers all 41 U.S.- and Canada-based EfW operations in place in 2009 (whether the facility is owned and operated by Covanta, or owned by a municipal client and operated by Covanta), unless otherwise noted in the text. As our reporting and data-collection processes mature we will explore the possibility of including performance results from other operations in the United States (biomass to energy, transfer stations, landfill gas to energy) and our international operations.

The objectives of this first reporting experience were to:

- capture and organize information about our material sustainability related issues and activities in one place so we identify strengths and opportunities for improvement
- create a baseline report of performance data from which we can create future policies, procedures, and performance targets for annual reporting
- create a tool to be used when engaging our key stakeholder groups about our sustainability performance—including our customers, employees, investors, suppliers, and interested environmental and social groups

This baseline report is a starting point for evaluation and engagement that will lead to stronger long-term relationships with our internal and external stakeholders and ultimately to a long record of improvement and excellence in our economic, social and environmental performance.

As we gain more experience with reporting and deepen and formalize our engagement with stakeholders, we will improve our understanding of the kinds of information that our stakeholders need and that contribute to our company's success. Therefore, we will likely change the scope and boundary of our reporting.

The Covanta Alexandria/Arlington EfW facility is located in Alexandria, Virginia, across from the Van Dorn Metro stop. Located in the midst of homes and businesses, the facility is a short ride to Old Towne Alexandria.



## Our approach to reporting

To determine the content of this report, we applied the Global Reporting Initiative's Sustainability Reporting Guidelines (GRI). The GRI is a network-based organization that has developed the world's most widely used sustainability reporting framework. This framework sets out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. For more information, please visit: [www.globalreporting.org](http://www.globalreporting.org).

We also conducted a materiality analysis that took into account the concerns of a broad variety of stakeholder groups, some Ceres personnel (informal), our sustainability advisory panel and other NGOs and stakeholders. We also held internal discussions among management.

We encourage you to provide feedback, ideas or questions on our sustainability performance and this report. Please send all comments to:

Brian Bahor, QEP  
Vice President, Sustainability  
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862.345.5113



# We help communities generate energy from waste.

In addition to energy-from-waste (EfW) facilities, we own, have equity investments in, and/or operate energy generation facilities that use other sources of fuel such as wood waste (biomass), landfill gas, water (hydroelectric), natural gas, coal, and heavy fuel oil. We also own or operate several businesses that are associated with our EfW business, including a waste procurement business, two ash mono-fills (landfills that receive only ash) and two landfills, which we use primarily for ash disposal, and 13 waste transfer stations.

Covanta's international segment comprises waste and energy services operations in the United Kingdom, Ireland, Italy, and China and fossil fuel-based operations in the Philippines, India, China, and Bangladesh. We have started a process to divest

fossil fuel-based operations, because these operations are not consistent with our mission to be the world's leading EfW company. Information regarding international operations has not been included in this report.

Covanta Energy is wholly owned by Covanta Holding Corporation, which is listed on the New York Stock Exchange under the ticker symbol CVA. In 2009, Covanta Holding Corporation had global operating revenue of US\$1.55 billion. The company employs 4,100 full-time employees, the majority of which are based in the United States. Covanta's headquarters are located in Morristown, New Jersey.

# Our North American operations

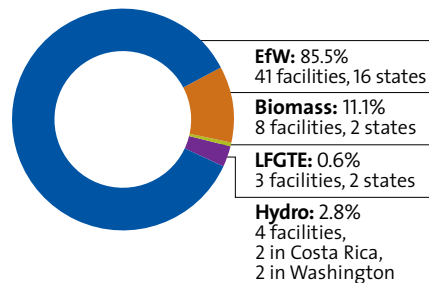
The focus of this first sustainability report is our core business: the development and operation of EfW facilities. EfW helps to address four of our nation's largest challenges:

- climate change
- access to affordable and renewable domestic energy
- sustainable waste management
- job creation

In 2009, we operated 41 EfW facilities in 16 U.S. states and British Columbia, with each facility providing electrical power and/or steam to its community. The facilities processed more than 17 million tons of waste in 2009 into clean, renewable energy—enough to power more than 770,000 homes. The majority of waste comes from our client communities. In addition, through Covanta Secure Services, we source waste from commercial and industrial operations that are seeking to avoid landfilling and/or to assure destruction of their waste. This service has become an important operating asset to Covanta, as many companies are seeking to adopt sustainable waste management practices that incorporate EfW's energy generation and GHG mitigation characteristics.

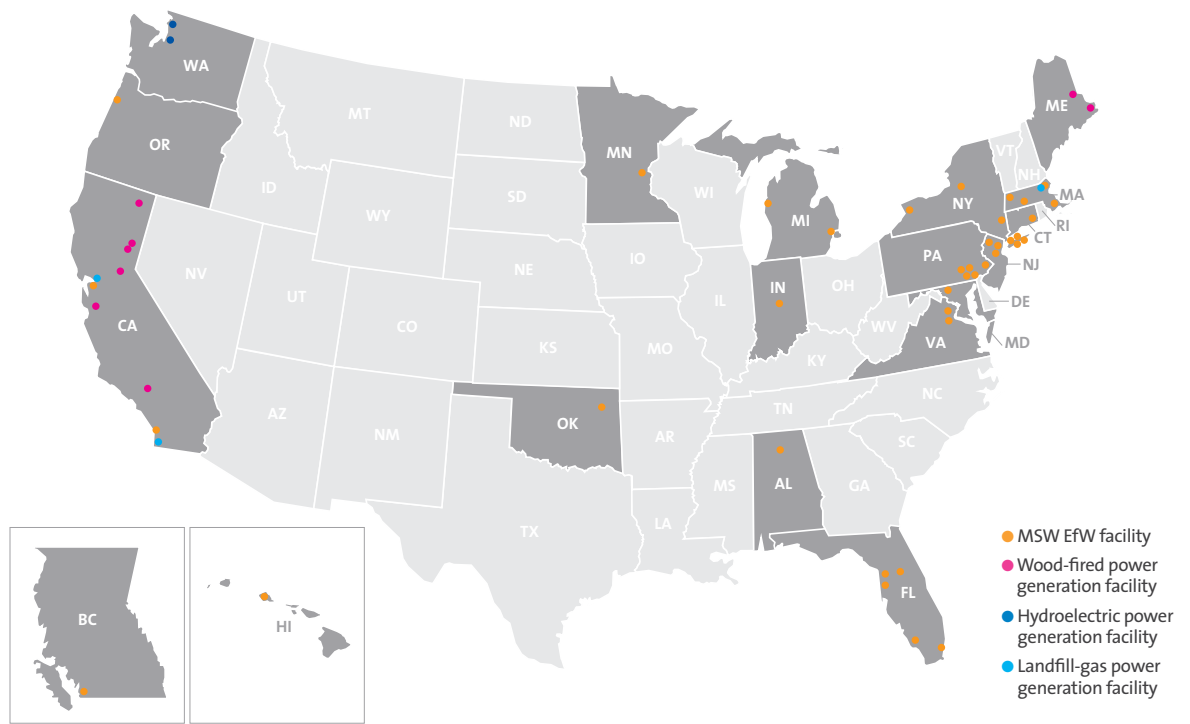
At the end of 2009, Covanta fully or partially owned 23 EfW facilities. The company operates the remainder under long-term agreements on behalf of its municipal clients. Because only a small amount (seven percent) of all MSW in the United States is managed through EfW, this technology presents a significant growth opportunity for our company. Currently, we are focusing our international growth efforts on Europe.

## Covanta domestic operations installed capacity (MW)



In addition to its North American EfW facilities, Covanta also owns or partially owns eight waste-wood-to-energy (biomass) facilities and operated three landfill-gas-to-energy (LGTE) plants designed to capture methane gas from landfill sites. These operations will be addressed in a subsequent sustainability report.

For a complete description of each of our U.S. and Canadian EfW facilities, please visit our website at: <http://www.covantaenergy.com/covanta-solutions/covanta-facilities.aspx>



## Covanta's U.S. Facilities

**Alabama**  
Huntsville

**California**  
Burney  
Delano  
Jamestown  
Mendota  
Oroville  
Otay  
Stockton  
Stanislaus County  
Long Beach

**Connecticut**  
Bristol  
Hartford  
Preston  
Wallingford

**Florida**  
Hillsborough County  
Lake County  
Lee County  
Pasco County

**Indiana**  
Indianapolis

**Hawaii**  
Honolulu

**Maryland**  
Montgomery County

**Massachusetts**  
Haverhill  
Pittsfield  
Springfield  
West Wareham

**Michigan**  
Detroit  
Kent County

**Minnesota**  
Hennepin County

**New Jersey**  
Essex County  
Union County  
Warren County

**New York**  
Babylon  
Dutchess  
Hempstead  
Huntington  
Islip  
Niagara Falls  
Onondaga County

**Oklahoma**  
Tulsa

**Oregon**  
Marion County

**Pennsylvania**  
Chester  
Harrisburg  
Montgomery  
Plymouth  
York

**Virginia**  
Alexandria/  
Arlington  
Fairfax County

**British Columbia, Canada**  
Vancouver

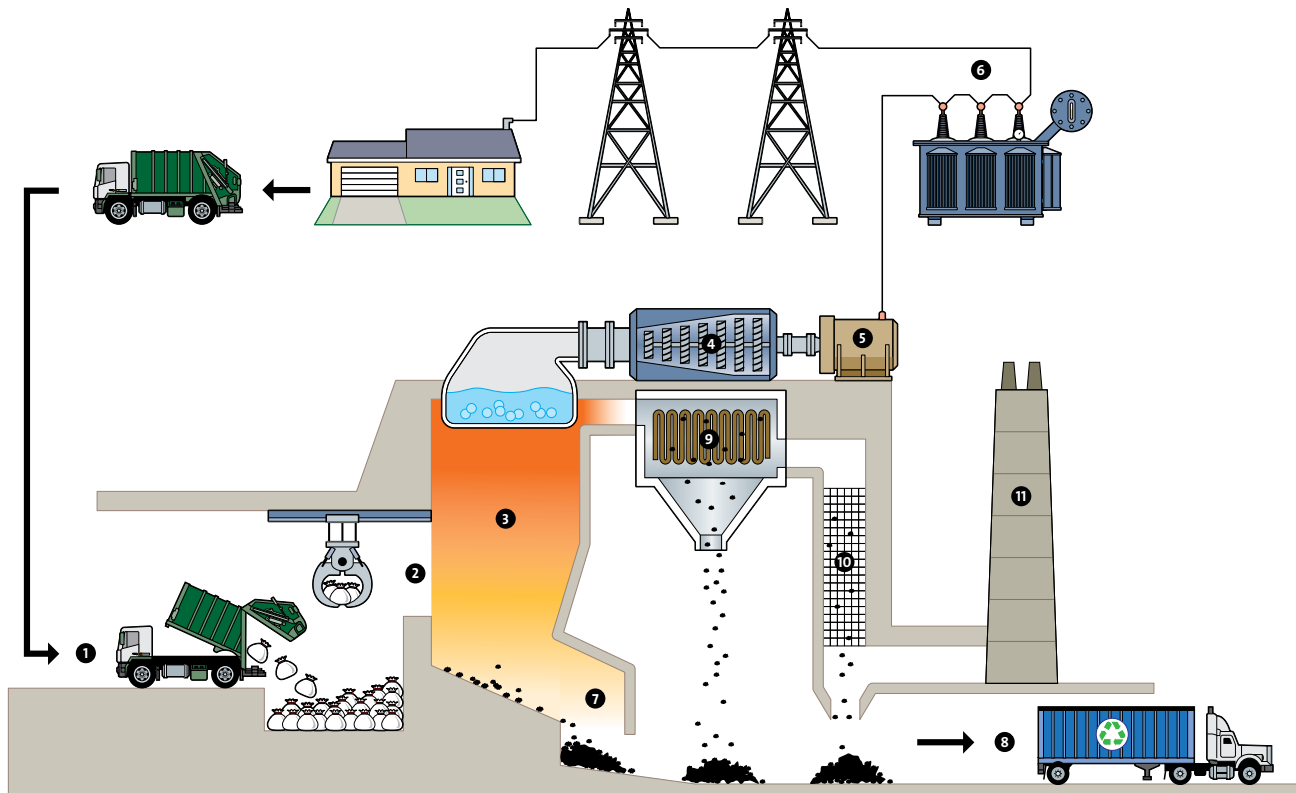
**Washington**  
Koma Kulshan  
Weeks Falls



Covanta's U.S. operations process 65 percent of America's EfW volume and generate, in combination with our other renewable energy facilities, approximately eight percent of America's non-hydro renewable electricity. In the process, we recover over 400,000 tons of metal annually for recycling that would have otherwise been lost in landfills.







## Does EfW generate renewable energy?

The formal definition of the term “renewable energy” varies. [The International Energy Agency](#) defines renewable energy as energy “derived from natural processes that are replenished constantly.” Solar, wind, wave, hydropower, biomass, and geothermal energy are typically considered renewable. In addition, the U.S. government and nearly all states with renewable energy laws have included EfW within the definition of renewable energy.

Those who support the claim that EfW should be considered renewable point to the fact that there is a tremendous amount of MSW remaining after reuse and recycling, even in locations with mature state-of-the-art waste management programs. This waste can serve as a long-term supply of fuel in EfW facilities, as it will be “replenished constantly” for the foreseeable future.

While the actual content of nonrecycled MSW changes due to many variables, approximately 65 percent of the combustible portion of MSW comprises conventional renewable biomass materials, such as paper, wood, and food scraps. The remaining 35 percent is composed of plastic, textiles, and other materials containing fossil-based carbon. Although some believe that only the biomass component of MSW should be considered renewable, others consider the entire MSW waste stream as renewable.

We consider EfW-generated energy to be renewable because the fuel, MSW, is consistently replenishable and all of the energy recovered by the EfW process preserves natural resources and avoids secondary impacts from mining and the combustion of those resources.

## How energy from waste works

**1** Municipal waste is delivered to our facilities and stored in a bunker.

**2** The waste is transferred to a combustion chamber where self-sustaining combustion is maintained at extremely high temperatures. We maintain the building around the tipping

and bunker area under negative pressure and use this air in the combustion process to control odor.

**3** The heat from the combustion process boils water.

**4 & 5** The steam from the boiling water is used directly or more frequently, the steam drives a turbine that generates electricity.

**6** Electricity is distributed to the local grid.

**7** Ash from combustion is processed to extract metal for recycling. It is then combined with residue from the air pollution control process (see items 9 and 10).

**8** The combined ash is either disposed of in a monofill that receives only that waste, used as cover material at a conventional landfill, or landfilled with other waste.

**9** All gases are collected, filtered, and cleaned before being emitted into the atmosphere. We manage gas from the combustion process with state-of-the-art air pollution control technology that operates to state and federal standards.

**10** We control emissions of particulate matter primarily through a baghouse (fabric filter).

**11** We monitor criteria and other pollutants and operating parameters to ensure compliance with permit conditions.

# Consistent generation of clean, safe power

Covanta has been providing reliable management of MSW to communities since 1986. In 2009, Covanta's facilities managed over 17 million tons of MSW in North America, generating a nominal 8.8 million megawatt hours (MWh) of power for distribution to the grid—enough to power 770,000 homes for a year.

In contrast to the intermittent generating power of traditional sources of renewable energy, such as wind or solar, each of our EfW facilities is on-line more than 99 percent of the time to provide reliable waste management and consistent power generation for our client communities. We've maintained steady reliability even as the size of the company, and the amount of waste that we process, has increased over time.

Processing MSW at EfW facilities for energy generation (steam or electricity) helps to avoid the release of GHG emissions from the burning of fossil fuels. On average, each ton of MSW can produce 0.55 MWh of electricity (0.7-0.8 MWh per ton at new facilities)

that can be delivered to the grid. That means that the same amount of fossil fuel-based electricity does not have to be generated, thus avoiding the release of GHG emissions. Also, since the combustion of MSW generates energy, we use that energy rather than fossil fuels such as natural gas, oil, or propane to run our EfW facilities. These auxiliary fuels are used only during short term periods such as startup and shutdown or as required to maintain compliance.



On average, it takes about one hour to process a ton of MSW and deliver the resulting electricity to the grid. In contrast, it is estimated that the decomposition of waste in a modern landfill takes 100 to 150 years.



A garbage truck has enough waste to supply 1/2 of the daily energy demands of a typical household when that waste is managed at an EfW facility.



# Covanta's contribution to waste management in the United States

## The role of EfW in MSW management

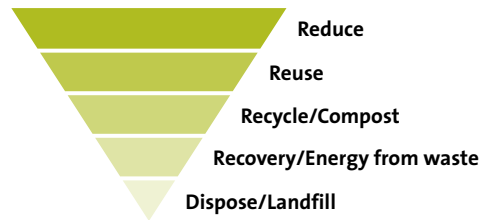
Of the estimated 389 million tons of MSW generated in the United States in 2009, 69 percent is sent to landfills, 24 percent is recycled, and only 7 percent is managed by EfW. Current reliance on landfilling of MSW creates a significant opportunity for the country to move a large percentage of waste management to a higher rung on the waste hierarchy. Waste prevention and reduction at the source are key, followed by recycling and composting. The waste that remains can typically be handled by EfW.

**MSW includes both residential waste, which comprises the vast majority of material, and nonhazardous solid waste from commercial operations.** For MSW that is not reused, composted or recycled, there are two primary MSW-management options: (1) an EfW process, or (2) a landfill. An EfW facility serves as a highly regulated power plant that maximizes the use of the MSW as a fuel, and at the same time allows for the recovery of energy and metals.

### Waste hierarchy

The waste hierarchy identifies five waste-management activities in descending order of preference. The preferred activity is waste reduction; the least desirable is landfill disposal.

The European Union and the U.S. Environmental Protection Agency (U.S. EPA) have each concluded that MSW, if managed according to this waste hierarchy, can help to maximize energy savings and minimize GHG emissions.



### Evolution of EfW in the United States

Operational feature	Before 1980	1980 to 2000	2000 to 2010	In progress
	<b>INCINERATORS</b>	<b>RESOURCE RECOVERY</b>	<b>EFW</b>	<b>ADVANCED EFW VIA CLEAN WORLD INITIATIVE</b>
Energy recovery	No	Yes	Yes	Yes but improved through higher efficiency
Combustion control	No	Yes	Advanced automatic combustion controls	Advanced combustion with NOx control
Air pollution control	Primarily particulate	Variable on a state to state basis	One federal standard that drove use of semi-dry scrubbers, carbon, baghouse	Lower limits and improved monitoring
Metals recovery	No	Some sites	Almost 100%, primarily ferrous	Ferrous and nonferrous
Wastewater reuse	Some for ash management	Some with zero discharge	Maximize reuse, minimize discharge	Goal of zero discharge, maximize re-use in facility



The term “incineration”, which is often erroneously applied to EfW, is an uncontrolled combustion process without energy recovery. Incinerators are no longer in operation in the United States. Covanta does not operate any incinerators in any international locations.

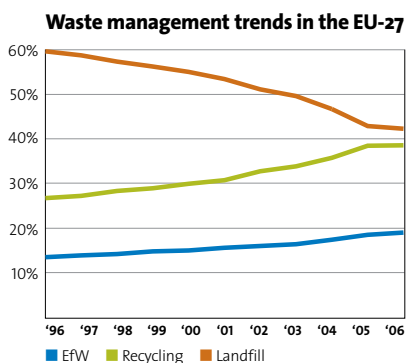
## The relationship between recycling programs and EfW

An abundance of long-term data from the European Union and the United States demonstrates that diversion of MSW from landfills can create growth in both recycling and EfW activities.

Landfilling is usually the cheapest option for managing MSW. It is the least desirable option from an environmental perspective because long after waste placement, even where leachate and gas-collection systems are used, there is the potential for groundwater pollution and escape of uncontrolled decomposition gases. Legislation and financial incentives are often needed to move MSW management up the waste hierarchy to recycling or EfW.

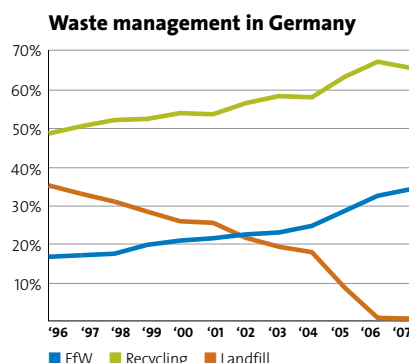
For example, recycling rates in Germany are among the highest in the world due to the country's 30-year history of creating legislation to divert MSW from landfills. Over the course of this time period, Germany instituted a landfill levy of approximately US\$120 per ton of waste. The levy was then replaced with an outright ban on landfilling of MSW that took effect in June 2005.

As national attention turns towards climate change and renewable energy, we expect the United States and Canada to implement legislation that will reduce landfilling rates.

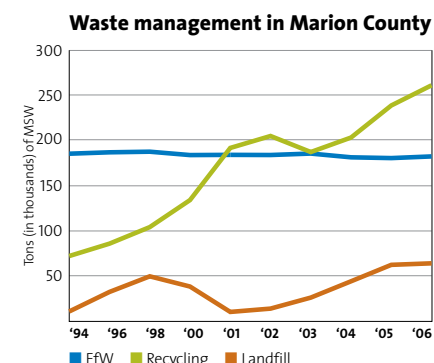


Trends in MSW management activities in the 27 European Union countries (EU-27) from 1996 through 2006 demonstrate that diversion of MSW from landfills correlates to growth in both recycling and, to a lesser extent, EfW.

Note: Careful attention is warranted when comparing recycle rates. As an example, the “recycling rate” reported above for the EU considers only MSW which includes paper/glass/metal/plastic and composting but does not include construction and demolition debris. It is also important to identify whether the rate refers only to separation of the waste stream into components or the actual transformation of the waste into new products.



Both recycling rates and EfW activities have increased as landfilling of MSW was first discouraged and then banned in Germany.



Marion County, Oregon, used integrated waste management—consisting of recycling, landfilling, and EfW—to manage the tripling of its MSW generation from 1994 to 2006. Recycling includes conventional materials such as paper, glass, metal, plastic, organics and other materials (tires batteries, etc.). The rate does not include waste from manufacturing and industrial processes, brick and concrete, discarded vehicles and reconditioned or reused materials.



## EfW helps drive recycling in Marion County

EfW is a valuable complement to a strong recycling program. For example, the recycling rate in Marion County, Oregon, where Covanta operates an EfW facility, increased from 26 to 52 percent of the total waste stream from 1994 to 2006 (see chart, above right). According to

Jeff Bickford, the Marion County Environmental Services Division Manager, revenue from EfW operations has helped drive this increase by subsidizing recycling projects that are not otherwise financially self-sufficient. When Marion County nearly tripled its MSW

generation rate from 1994 to 2006 due to population and commercial growth, it used its integrated waste management system effectively—increasing recycling while continuing to use EfW and landfilling at relatively stable rates to dispose of the waste that remained.

## The role of EfW in addressing climate change

The Fourth Assessment Report by the Nobel Prize-winning Intergovernmental Panel on Climate Change (IPCC) concluded that global concentrations of GHGs—primarily carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O)—in the atmosphere are very likely due to the increase of “anthropogenic”, or man-made, GHG emissions .

### Accounting for carbon

CO<sub>2</sub> from fossil fuel is known as anthropogenic, or man-made CO<sub>2</sub>, because it originates from human use (combustion) of fossil fuels including coal, oil and natural gas. The combustion of fossil fuels releases carbon into the atmosphere that was previously permanently sequestered. Methane from landfills, although not fossil-based, is also an anthropogenic GHG, because it is the result of human activity.

In contrast, CO<sub>2</sub> from the combustion of biomass is not counted as a GHG emission according to the IPCC, the European Union, or in life-cycle analysis tools created by the U.S. EPA. When trees and other plants making up biomass materials grow, they take in and store CO<sub>2</sub> that re-emitted back to the atmosphere upon combustion.

Not all biomass-based (biogenic) carbon is carbon neutral. For example, the use of biomass for energy that results in land-use change, such as the conversion of tropical rainforests to cropland or clear cutting of old growth forests, has serious negative climate impacts. Conversely, waste sources of biomass, such as forestry residues and MSW, do not result in land-use change, and are widely recognized as a sustainable source of biogenic carbon that can play a significant role in reducing global GHG emissions.

The build-up of GHGs in the Earth’s atmosphere is very likely causing our climate to change. Governments, industry, and academics are looking for low-carbon or carbon-neutral energy sources to replace our current dependency on fossil fuels. Although much attention has been paid to exploring the potential of solar, wind, geothermal, and even nuclear power, unfortunately, significantly less effort has been devoted to the consideration of MSW as part of the solution.

At Covanta, we see this as a business and sustainability opportunity. In fact, a U.S. EPA lifecycle assessment of recycling, EfW, and landfill options demonstrates that recycling and EfW can reduce overall GHG emissions and, when considered together, can generate significant savings and environmental benefits.



### Climate impacts of waste management options

**Recycling** reduces CO<sub>2</sub> emissions by saving energy that would have been expended to mine, refine, and process virgin materials into finished products. Recycling also preserves virgin natural resources for future generations. For example, according to the U.S. EPA, approximately 206 million British thermal units (BTUs) are saved by producing aluminum from recycled materials rather than from bauxite ore mined from the Earth.

**EfW** allows for emissions reductions via three different mechanisms:

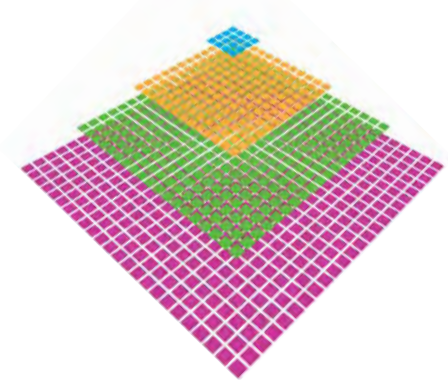
- avoiding methane emissions from landfilling MSW;
- generating energy from MSW, thus avoiding the need to combust fossil fuels for that purpose, resulting in avoided fossil CO<sub>2</sub> emissions; and
- through the recovery of metals, thus saving energy in a manner identical to recycling.

**Landfills** emit methane as waste decomposes (over a 100-to-150-year period). Some landfills convert captured landfill gas into energy, although at a far lower efficiency per ton of waste than EfW.

#### Renewable energy land footprint

Measured in acres, EfW is one of the most efficient uses of land per megawatt (acres/MW) among current renewable energy solutions. Covanta’s facilities require an average of .7 acres/MW of electricity compared with 8 acres/MW for solar, 18 acres/MW for wind, and 27 acres/MW for landfill gas to energy based on average capacity over 30 years.

- Covanta EfW
- Solar power
- Wind power
- Landfill gas to energy





# Opportunities for growth

EfW growth opportunities are driven by local needs for environmentally sustainable disposal, coupled with the international consensus that landfilling is the option of last resort for MSW disposal. We see meaningful growth opportunities to build new EfW facilities, and we have both the expertise and the significant capital necessary to be successful. In fact, Covanta has unparalleled experience and a strong business model, as demonstrated by the fact that, despite the challenging economic environment, we realized \$397 million in net cash from operating activities in 2009. We are investing our net cash in research and development and attractive new projects where regulations support EfW over landfills as a climate-friendly

solution to two of society's biggest challenges: waste disposal and clean energy generation.

**Covanta will consider financial returns as well as the strategic and sustainable benefits** of the opportunity when making both development and acquisition decisions. Using our financial and technical strength, we are working to capitalize on growth opportunities for the benefit of our shareholders, client communities, the environment and society at large.

**Covanta has organized its operations in the Americas, Europe, and Asia.** We have developed a customized business plan for each geographic region that is responsive to local market needs, policies, and legislation.

**Europe currently represents our most vibrant growth market.** The EU Landfill Directive, adopted "to prevent or reduce the negative effects on the environment from the landfilling of waste," mandates a 65 percent reduction of landfilling of biodegradable waste by the year 2020 or sooner. This and other directives have led Member States to divert municipal solid waste from landfills to recycling and EfW. While the waste management programs of certain Member States such as Germany and Denmark are fully mature, there are many opportunities in other countries such as the United Kingdom and Ireland.

**The bulk of our operations are in North America.** Our efforts in this market focus on improving the efficiency and performance of our existing operations and pursuing growth opportunities in EfW through expansions or new development. Both the United States and Canada currently lack the policy and regulatory framework necessary to encourage investment in EfW and other alternatives to landfilling. As a result, we do not see the scale of growth opportunities in North America that are available in Europe, and we do not expect to invest substantial capital until waste management policy changes are implemented or energy prices rise.

Our focus in Asia is in China, where the EfW market is driven by a policy goal of diverting 30 percent of MSW from landfills to EfW facilities as well as preferential electricity rates. The goal was established to minimize dependence on landfills while also reducing diesel fuel usage associated with long haul of MSW from population centers. We have a limited number of investments in EfW projects in China and anticipate it being a growth market.

**We're excited about our EfW development prospects** and how worldwide attention to energy and climate change is forcing our nation to rethink how to manage its resources in a sustainable manner. We believe that the U.S. EPA has set the right tone for this issue by clearly identifying effective materials management strategies, i.e., through resource conservation and resource recovery.

For additional information about our development prospects as well as our financial performance, please visit our 2009 Annual Report at: <http://investors.covantaholding.com/phoenix.zhtml?c=115220&p=proxy> and our corporate website.



A single kitchen bag of trash has the potential to keep a compact fluorescent light bulb aglow for approximately four days.



The world needs smart  
energy solutions.  
We're providing them.



# Our strategy for sustainability

Our mission is to be the world's leading EfW company. In order to accomplish this mission and create value for all of our stakeholders, our strategy is to:

- provide customers with superior service and effectively manage our existing business;
- generate sufficient cash to meet our liquidity needs and invest in our business;
- advance our Clean World Initiative in order to enhance the value of our existing business and create new opportunities; and
- develop new projects and make acquisitions to grow our business in the Americas, Europe and Asia.

We also work to protect and preserve the health and safety of our employees and the well-being of our local communities in all that we do.

**Our Clean World Initiative—a set of commitments to further our sustainability performance—is an intrinsic part of our strategic approach.** Through the Clean World Initiative, we are committed to achieving and maintaining performance that ranks among the best in our industry in environment, health, and safety, and to engaging with and contributing to the communities in which we operate.

Additionally, our [Sustainability Policy](#) was developed in 2009 and presents our vision and understanding of our economic, social and environmental responsibilities.



## Covanta's Clean World Initiative

The Clean World Initiative is our commitment to

- invest in the research and development of new technologies to enhance existing operations and create new business opportunities in renewable energy and waste management

- explore and implement processes and technologies at our existing facilities to improve efficiency and lessen environmental impacts

- partner with governments and nongovernmental organizations to communicate the benefits of EfW, enhance recycling opportunities in conjunction with EfW technology and support the development of other environmental programs, such as reducing the use of mercury-containing devices

# Sustainability management

Covanta's original environmental department, formed in the early 1990s, was managed from corporate headquarters and comprised of facility personnel responsible for implementing environmental regulatory standards. Through dialogue between facilities and Covanta's corporate management, both groups gained a better understanding of facility performance, learned from situations at other facilities, and ultimately improved compliance with environmental standards. More reactive than proactive in its early days, the department nevertheless had active community programs at the facility level and research and development (R&D) aimed at improving operating efficiencies and safety and reducing environmental impacts.

A company-wide restructuring in 2007 represented a shift towards a more proactive, goal-oriented nature in our environmental management program while also merging other departments under the umbrella area of sustainability. The sustainability department is managed by our chief sustainability officer, a corporate officer who reports to the chief operating officer and the chair of the Board of Directors public policy committee.

The sustainability department includes the following units:

**Health and Safety** develops and implements programs that fully comply with the law and provide a safe work environment for all employees.

**Testing and Continuous Emission Monitoring** develops and implements field-test programs that meet state and federal standards.

**Environmental Quality Management** develops and implements field compliance programs for all facilities to achieve 100 percent compliance with applicable state and federal standards. This unit also includes corporate and facility personnel that ensure effective communication of goals and procedures and feedback on performance.

**Environmental Science and Community Affairs** develops and implements programs between a facility and its local community. Programs can be targeted efforts such as the separation of mercury-bearing waste or general efforts to promote communication, with an emphasis on environmental justice (EJ) issues and areas. The group seeks to enhance outreach to nongovernmental organizations (NGOs), academics, regulators, environmental organizations, and other members of the broader Covanta community.

**Sustainability** (1) manages technical and regulatory aspects of GHG emissions from various waste-man-

agement activities, (2) coordinates efforts to document and promote sustainability projects and initiatives throughout the company that help Covanta fulfill its Sustainability Policy and (3) develops permit applications for new projects that meet evolving state and federal performance requirements while also incorporating sustainable programs.

**Corporate Communications** is responsible for Covanta's internal communications, media relations, branding, website/social media strategy and publications. News and information released to employees and the media are coordinated through Corporate Communications.

**Research and Development (R&D)** is a separate department that reports to the chief operating officer. It is integrally involved with sustainability through development and implementation of field programs to advance technology for the management of MSW and its conversion to energy, and air-pollution-control technologies that minimize environmental impacts.

These departments, along with human resources and business management, which includes community relations, work together and with facility personnel to create and advance the best approach to social, environmental, and economic performance.



Covanta implements projects with experienced engineering and project management.



Construction of new Efw unit at HPOWER site in Honolulu in foreground. Existing units in background.

# Stakeholder engagement

We reach out to stakeholders, including investors, employees, community members, policymakers, client municipalities, and others to better understand their concerns and to use their feedback to make our operations more sustainable. Many of our outreach efforts are ongoing. For example:

- As a publicly held company, we regularly meet with investors and use quarterly calls, announcements and financial filings to communicate our performance. Conversations with investors focus on a large number of topics with a key one being plans to ensure the continued growth and financial health of our business.

Please visit our investor relations website for complete information: [investors.covantaholding.com](http://investors.covantaholding.com)

- We strive to provide a forum for members of the communities in which we operate to discuss any concerns they may have about our facilities' operations and strive to ensure that our facilities do not infringe on any individual's or community's right to a safe and clean place to live.
- We recognize the complexity of issues surrounding EfW and the management of MSW in general. As an industry leader, we engage with policymakers to provide on-the-ground operational insights. We also partner with regulators to help develop innovative new technologies to improve the efficiency, safety and effectiveness of the EfW process.

- Our employees are the backbone of our company and we rely on their expertise and commitment to ensure consistent, safe, and reliable service to our client communities. In addition to the informal conversations between management and staff that occur every day, we conduct an employee survey to identify how we can continue to create a great place to work.
- We are members of the Energy Recovery Council (ERC), the EfW trade association formerly known as the Integrated Waste Services Association (IWSA). Covanta plays a leadership role at ERC in interfacing with state and federal agencies that work on energy, climate change, and other environmental programs. For more information, please visit <http://www.wte.org/about>
- We are members of the European equivalent of ERC, the Confederation of European Waste-to-Energy Plants (CEWEP) and ERC's Canadian equivalent, Canadian Energy from Waste Coalition.

In 2008, we sought informal feedback on our sustainability performance from [Ceres](#). From this

engagement, we identified the following issues for action and have responded to each in this report:

**Recycling:** Can EfW coexist with recycling?

**Environmental Justice:** Do we appropriately engage with and respond to community concerns?

**Emissions:** Are we in compliance with standards?

**Lobbying positions:** What are our positions and rationales for specific legislative proposals?

In 2009 we assembled our own stakeholder panel comprising independent experts in different areas of sustainability to advise the company regarding its sustainability strategy, management, and communications. In order to defray the costs of participation, we compensated stakeholders for the time spent in reviewing report drafts and participating on panel calls.

The panel commented on early drafts of this report as well as on our process for determining material issues, described below, and the results of the materiality analysis.

We intend to assess and further improve our stakeholder engagement over the years to come as we gain more experience with the process and as our needs and priorities evolve.

## Members of our stakeholder advisory panel

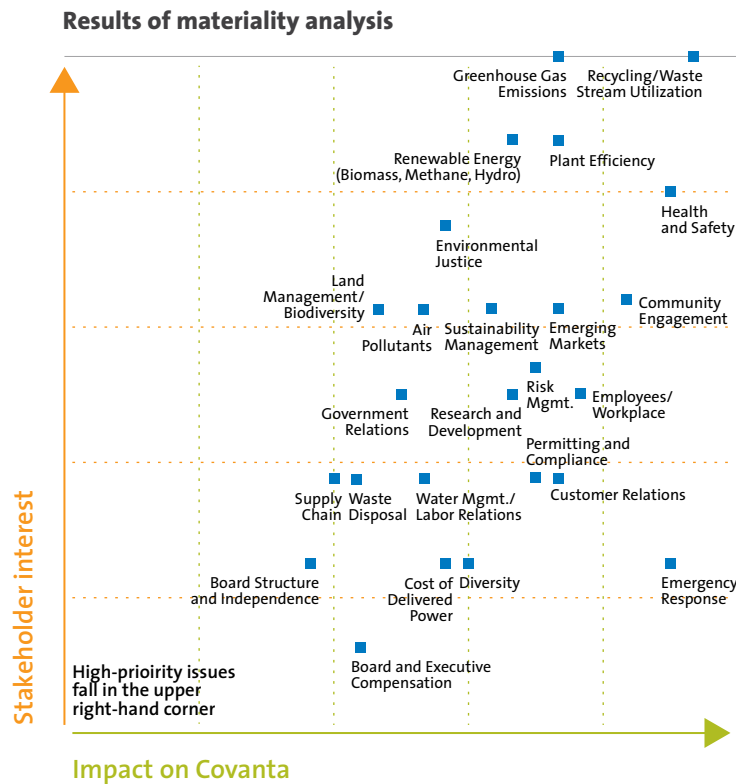
Member/ Organization	Area/Stakeholders represented
<b>Matt McCulloch</b> THE PEMBINA INSTITUTE	Canada/International, renewable energy, sustainable communities
<b>Staffan Soderberg</b> WORLD WILDLIFE FOUNDATION (WWF)	Sweden office, international environmental conservation, efficient use of resources
<b>Vernice Miller Travis</b> MILLER-TRAVIS & ASSOCIATES	USA, environmental justice, local communities
<b>Dr. Ping He</b> INTERNATIONAL FUND FOR CHINA'S ENVIRONMENT	Based in Washington, D.C., with branch offices in Beijing, Shanghai, and Wuhan, environmental scientists
<b>Timothy Smith</b> WALDEN ASSET MANAGEMENT	USA, sustainable and responsible investing, economic, governance
<b>Chris Perceval</b> WORLD RESOURCE INSTITUTE (WRI)	USA/International, climate, energy, environment
<b>David Bent</b> FORUM FOR THE FUTURE	UK, social, climate change, financial, environmental, sustainability



# Focusing on material issues

We define material issues as those that would likely have a significant impact on Covanta and are relevant to our key stakeholders. As part of the development process for this report, we conducted a materiality analysis to evaluate the economic, environmental, social, and governance issues that concern Covanta's stakeholders and that affect the company's ability to execute its business strategy.

We determined our priority issues through an analysis of stakeholder concerns, including a comprehensive review of publicly available documents; discussions with our stakeholder advisory panel, which comprises representatives of key stakeholder groups; and internal review by company executives. The below materiality matrix depicts the relative priority of our sustainability issues. The materiality analysis has informed the discussion of the issues in this report and will inform both our sustainability strategy and our communications going forward.



# Public policy development

As part of Covanta's public policy engagement efforts, we seek to initiate discussions with activists, policy-makers, thought leaders, and other interested parties on legislative proposals related to our company's core business. We hope to facilitate engagement by developing and publicly disclosing our positions on public policy issues of most interest to our external stakeholders. This sustainability report is one such step toward enhancing our transparency to foster constructive engagement.

In the following pages we outline our public policy positions and efforts regarding some of our key sustainability issues. Our overall goal is to advocate development of legislation and regulations that support the U.S. EPA's materials and energy management program where MSW is considered to be a valuable resource. Effective federal and state programs would maximize reuse, recycling, and energy recovery and minimize landfilling.

## The relationship between EfW and recycling

Some stakeholders have expressed concern that EfW hinders recycling from two perspectives: 1) that municipalities will not recycle MSW because contracts between EfW operators and communities require delivery of a certain minimum tonnage of MSW; and 2) that the presence of an EfW facility in a community discourages local recycling efforts.

With regard to the first concern, Covanta maintains close working relationships with its client communities and has been responsive to communities looking for flexibility in the minimum tonnage of MSW required when service agreements are being renewed. If a community is concerned that the minimum tonnage will impact its recycling rate, contract provisions can and have been included to allow for an adjustment of the minimum.

With regard to the second concern, information on waste management in the European Union and the United States demonstrates that high recycle rates exist in partnership with energy recovery; however, there is comparatively less information that defines behavior in the United States. We are working to better understand and communicate the relationship between EfW

and other waste-management operations, including recycling. We are exploring how such operations may be pursued in a complementary manner that best serves the needs of society. This effort includes interviews with clients to learn firsthand their opinion of how EfW and recycling are interrelated. In parallel with that effort, we are exploring various partnerships and collaborations with respected recycling firms and NGOs to address this issue and to provide a more comprehensive approach to recycling and EfW conversion for our community customers.

[The U.S. EPA and European Union evaluate waste management operations from a materials management and resource recovery perspective and place higher value on activities that recover energy and materials.](#) As an example, the U.S. EPA's September 2009 report titled ["Opportunities to Reduce Greenhouse Gas Emissions through Materials and Land Management Practices"](#) established the link between GHG emissions and materials management and identified the GHG mitigation potential of EfW on a nationwide basis.

## Promoting the use of combined ash in the United States

We are working to increase the acceptance of reusing combined ash in the United States. Combined ash is, as its name suggests, a combination of two of the byproducts of the EfW process: the bottom ash that remains after the combustion process and air-pollution-control residue.

[In Europe and other locations outside the United States, bottom ash is reused in civil projects such as road construction or fabrication of blocks.](#) Currently in the United States, however, approximately one-third of combined ash is used as landfill cover in lieu of soil or synthetic materials; the rest is sent for co-landfilling with MSW or to a monofill (a landfill containing only combined ash). Covanta is working with experts, authorities and others in its industry to promote the use of combined ash as a viable and valuable construction material in the United States.



## EfW and the reduction of GHG emissions

While the international scientific community recognizes EfW as a GHG-mitigation technology, not all stakeholders agree with this position. Covanta has been advancing the scientific basis that EfW is a viable process for reducing GHG emissions from two different perspectives: communication of factual scientific and technical information and active engagement in programs associated with reporting GHG emissions. We have outlined below our primary efforts in this regard.

### Characterization of CO<sub>2</sub> emissions.

Covanta has taken the lead in implementing two American Society for Testing and Materials testing methods (one for sampling and another for analysis) to determine the nature of CO<sub>2</sub> emissions from the EfW process. Specifically, the testing methods determine the fraction of emissions coming from biomass (“biogenic CO<sub>2</sub>”) and from materials derived from fossil fuels, such as plastics and textiles (anthropogenic, or man-made, CO<sub>2</sub>). This split is important to enable accurate reporting of emissions. The international community has classified anthropogenic CO<sub>2</sub> as a GHG emission; biogenic CO<sub>2</sub> is reported for information purposes only, however, given its role in the normal carbon cycle.

**Promoting a web-accessible version of the MSW Decision Support Tool (MSW-DST).** Covanta has signed an agreement with the U.S. EPA’s Office of Research and Development (ORD) to support the development of a web-accessible version of the MSW-DST, a lifecycle assessment (LCA) tool for determining the energy and environmental impacts of waste-management activities. The major strength of the peer-reviewed MSW-DST relative to other tools for estimating GHG impacts is that it can be tailored to site- and facility-specific conditions that provide more accurate information in decision-making.

### Developing landfill gas emission factors using U.S. EPA methodology.

Covanta has signed an agreement with the U.S. EPA to support field testing of several landfills using the EPA’s remote sensing methods for emission characterization from nonpoint sources. This unique program is providing data for quantifying emissions from nonpoint sources and will provide first-of-its-kind data for evaluating the effectiveness of landfill gas capture.

**Engagement with protocol development and working groups.** Covanta employees currently serve on the World Resources Institute/World Business Council for Sustainable Development (WRI/WBCSD) GHG Protocol Scope 3 Technical Working Group. The new protocol will provide a standardized method to develop a full inventory of the emissions associated with the activities of an organization.

**The Climate Registry Power Utility Protocol Workgroup.** Through participation in the Electric Power Sector Workgroup, Covanta helped develop The Climate Registry’s Electric Power Sector Protocol. The protocol is designed to assist organizations in the power and utility sectors in voluntarily reporting their emissions to The Climate Registry. The Climate Registry is a nonprofit collaboration among North American states, provinces, territories and Native Sovereign Nations that sets standards to calculate, verify, and publicly report GHG emissions into a single registry.

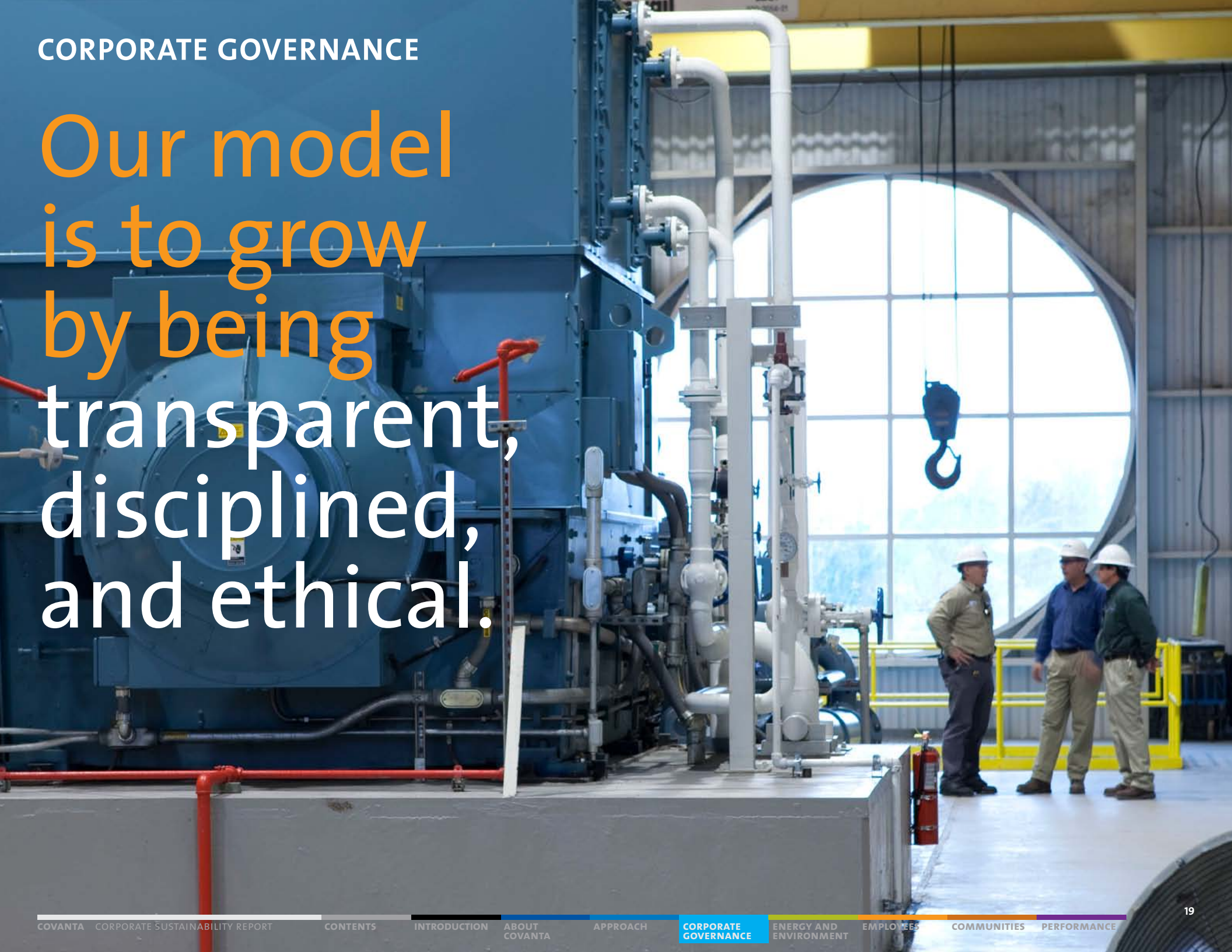
## Impacts of new regulation

The U.S. EPA has recently promulgated the Greenhouse Gas Reporting Rule, which will require the reporting of GHG emissions for all U.S. facilities in accordance with a standardized procedure. Covanta has been conducting these types of inventories for several years through the California Climate Action Registry and The Climate Registry. We believe that this reporting requirement will not have a material financial impact on our existing operations.





Our model  
is to grow  
by being  
transparent,  
disciplined,  
and ethical.





Covanta's Policy of Business Conduct emphasizes themes of integrity and judgment and identifies workplace safety and environmental responsibility as key values.

## Board structure

Covanta's board of directors is composed of 10 members, including Chief Executive Officer Anthony Orlando. Samuel Zell is the nonexecutive chairman. Eight of the board's 10 members are independent. The board is organized into six committees, each with its own charter: audit, compensation, finance, nominating and governance, public policy, and technology. Two of the 10 board members are female and one is African American.

**Sustainability issues and our Clean World Initiative are important areas of focus for our board.** Oversight of sustainability efforts, as well as of safety and environmental policies and practices, is the specific responsibility of the public policy committee. The current chair of our public policy committee is Linda Fisher, Chief Sustainability Officer at E. I. du Pont de Nemours and Company. The technology committee enhances the performance of EfW through research and development and other efforts that address environmental and energy-recovery issues. Each of the committees has a member of the senior management team designated as its primary contact; our chief sustainability officer serves this function for the public policy committee.

The board's compensation comprises (1) annual fees plus additional fees for committee service, and (2) equity grants in the form of stock grants which vest over time. Other than the performance of our stock, the board's compensation is not linked to Covanta's performance. Senior

management compensation comprises (1) a base salary, (2) a cash bonus payable based on performance during the prior year, and (3) equity grants in the form of restricted stock and/or option, which vest over time. A portion of the cash bonus is based on corporate performance on health and safety and environmental objectives.

Our board, under the direction of our nominating and governance committee, conducts annual self-assessments of the full board and each of its committees, and discusses the results and further actions to be taken where improvement is needed.

The nominating and governance committee is responsible for, among other things, ensuring that the directors' background and experience are appropriate and relevant to Covanta's business, and enabling the board to provide proper oversight and guidance to management. The board does not specifically designate members responsible for social and environmental issues; indeed, given that Covanta's business is heavily influenced by environmental and community issues and regulation, it is fair to say that all members of the board—and management—take their responsibilities on social and environmental issues seriously.

All corporate governance documents are available at: [investors.covantaholding.com](http://investors.covantaholding.com)

## Ethics

All of our employees are expected to read and comply with our [Policy of Business Conduct](#). The policy covers topics such as financial reporting, corruption, copyrights and environmental health and safety. Employees are required to review and certify annually their understanding of and commitment to compliance with the policy. Covanta encourages employees to comment on the provisions of the Policy of Business Conduct in order to reinforce strengths, improve shortcomings and guard against any pitfalls. We regularly report to our board regarding compliance with our Policy of Business Conduct.

**Covanta has established processes for employees to voice ethics concerns. Issues can be discussed with supervisors, managers or members of the senior management team. Additionally, employees can report concerns anonymously by calling our third-party hotline, The Network, at: 1-800-241-5689 or, for international calls, +1-770-409-5006 (collect call).**

Our entire business is about  
wisely managing resources  
and environmental impacts.



# Covanta's approach to managing energy and environmental issues

Key challenges to any energy-generation approach are to provide energy to customers reliably and in a safe and environmentally responsible manner. At Covanta, our goal is to be the best in the world at managing these obligations. We are working towards this vision by improving plant efficiency and reliability through best management practices, reducing emissions and by-product wastes and minimizing certain waste streams such as mercury-containing thermostats and switches from being processed at EfW plants.



In 24 years of operation, our total GHG mitigation has exceeded 250 million tons—the equivalent of pulling 43 million cars off American highways for a year.

We seek to maintain strict compliance with all applicable laws and regulations and to go beyond compliance. Our Environmental Quality Management Department (EQMD) has implemented a nationwide environmental management system; EQMD corporate and facility personnel evaluate facility performance and assess and correct any exceedance of permit conditions. At the facility level, trained operators manage automatic combustion-control systems, air pollution control systems and continuous-emission monitoring systems to ensure that operating conditions comply with all regulatory requirements.

Our effectiveness at going beyond compliance is evident by having 24 facilities in 2009 participate in U.S. EPA's National Environmental Performance Track program. This voluntary program recognized efforts of

facilities that had achieved an excellent compliance record and made a commitment to go above and beyond legal requirements to improve the quality of our nation's air, land, and water. While the Performance Track program was discontinued by the U.S. EPA at the end of 2009, we will continue our efforts to go beyond compliance across all our operations.

In the rare event that a permit exceedance occurs, facility personnel work together with Covanta's management to perform a cause-and-effect analysis that 1) identifies the root cause, 2) creates and implements a solution that prevents a recurrence, and 3) distributes the "lessons learned" from the analysis to all facilities to assure that personnel are effectively learning from each other.





1



4



7



2



5



3



6

## Recognition for environmental excellence

Covanta's efforts in pursuing environmental excellence have been widely recognized, as evidenced by the partial list below:

**Covanta Energy** received the Energy Innovator Award from the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy

**Covanta U.S. facilities** have consistently been recognized by the American Society of Mechanical Engineers for excellence in plant operations.

**1. Covanta Alexandria and Fairfax** were admitted to the Virginia Environmental Excellence Program

**2. Covanta Honolulu** received the Kapolei Outstanding Achievement (KOA) Community Environmental Achievement Award

**3. Covanta Kent** received the Michigan Clean Corporate Citizen designation

**4. Covanta Lake** received the Council for Sustainable Florida's "Sustainable Florida Promising Practices for Outstanding Achievement" award

**5. Covanta Essex** received the New Jersey Clean Communities Business Partnership Award and the Stewardship of Public Lands Award

**6. Covanta Montgomery** received the SWANA Waste-to-Energy Excellence Award

**7. Covanta SECONN** received an EPA Environmental Merit Award

# GHGs and climate change

Our global society is in urgent need of energy sources that will not contribute to climate change—and, ideally, would help to slow global warming.

Covanta believes that existing technologies such as EfW are part of the solution. We also believe that to prepare for the future, we must continue R&D efforts to improve and expand the availability of both evolving and proven technology.

In addition, we consistently work to ensure that we conduct our own operations with minimal impact on the environment. That includes making sure that our plants operate as efficiently as possible to minimize the GHG emissions that they generate.

## Covanta's GHG emissions

Covanta's net GHG emissions for operation of EfW in the United States for 2009 were approximately a negative 17 million tons (negative 15.5 million metric tons of carbon dioxide equivalents (MTCO<sub>2e</sub>)). In other words, the company helped reduce emissions that otherwise would have occurred. This total is the sum of two components, namely:

- total anthropogenic emissions (auxiliary fuel, fossil-based portion of MSW, emissions of methane and nitrous oxide), and
- avoided emissions (methane from landfills, CO<sub>2</sub> from fossil fuel-based power generation).

Covanta's GHG inventory for its EfW operations in the United States is based on the MSW Decision Support Tool (MSW-DST), a lifecycle analysis methodology developed by the U.S. EPA.

Covanta has also been reporting its global GHG emissions, calculated on an equity share basis, to the Carbon Disclosure Project (CDP) since 2006. The equity share basis attributes GHG emissions and net savings based on Covanta's ownership share of its facilities. Covanta's anthropogenic GHG emissions for its U.S. operations as reported to the CDP were 4.2 million MTCO<sub>2e</sub>. Net emissions on an equity share basis from EfW were approximately a negative 10 million MTCO<sub>2e</sub> (11 million tons).

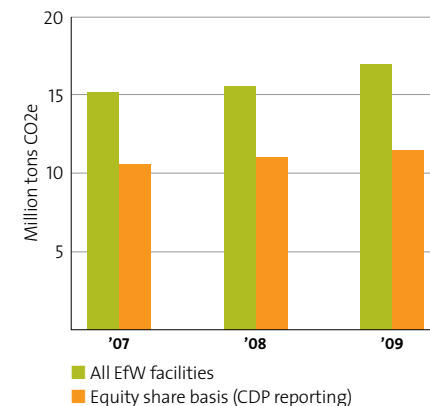
EfW facilities generate electrical energy and as a result, emissions from the purchase of electricity are very small for Covanta, and have not been reported in the totals above.

Covanta assists its client communities to realize the benefits of avoiding GHG emissions through the EfW process. The company has gathered information and submitted applications on behalf of client communities for the generation of carbon credits. Already, carbon credits have been verified through the Voluntary Carbon Standard for a recent capital expansion at our Lee County facility in Florida and have been sold on the voluntary market.



Our U.S.-based EfW facilities routinely achieve emission levels 60 to 90 percent below the established requirements of the U.S. EPA.

Net GHGs avoided across Covanta's North American operations





# Other air emissions

EfW facilities in the United States and Canada were established in accordance with permitting procedures that required compliance with standards in place at the time of the permit application. The standards for these facilities have evolved, with Canada and the United States having different regulatory processes.

New performance standards for existing EfW facilities in the United States took effect in December 2000. These include new and lower emission standards for pollutants, operating requirements, continuous emission monitoring and testing, and reporting requirements. These are “minimum” performance requirements, meaning that state environmental agencies can, and do, create more stringent standards.

Covanta’s facilities use advanced air pollution control equipment and monitoring systems that operate to comply with strict state and federal emission standards.

## Continuous emission monitoring system

Continuous emission monitoring systems (CEMS) are systems of equipment, instruments, and data management that provide virtually continuous information on certain emissions from each unit at a EfW facility. Continuous and reliably accurate data is available for criteria pollutants (nitrogen oxides [NOx], sulfur dioxides [SO<sub>2</sub>], carbon monoxide [CO] and particulate matter [PM]) that must be controlled to certain levels to be protective of human health and the environment. Pollutants that cannot be measured continuously and accurately, such as mercury, dioxin and metals, are measured as prescribed by the applicable state and federal regulations.

All of the information from CEMS operating parameters and reference methods is used to determine if a unit is in full compliance with permit requirements. A facility’s failure to meet a permit condition can be caused by anything from incorrect or late paperwork to failure of an instrument. Of primary concern, however, is when measured stack emissions of a regulated pollutant exceed the allowable emission limit. Covanta has a goal of zero exceedances of such limits.

Covanta determines compliance with continuous emission monitoring (CEM) standards by comparing the total number of operating hours with the amount of time that CEM measurements failed to comply with stack limits for three regulated “criteria pollutants”: NOx, SOx, and CO. Our analysis does not include six recently acquired facilities because their operating data was not readily available and compatible with our procedures. Therefore all analyses

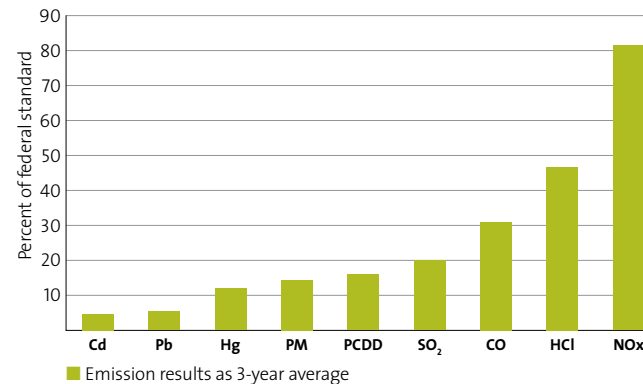
represent results from 35 of our 41 domestic EfW units. We are in the process of extending analysis of monitoring results to all EfW facilities as soon as practicable.

From 2001 to 2009, our nine-year average concentrations of the three regulated criteria pollutants were below the permit limit 99.9 percent of the time. The events contributing to the 0.1 percent of noncompliant hours were short-term events that were corrected within a matter of hours.

Total operating hours include all normal periods of operation when MSW was being combusted for energy recovery. The compliance percentage does not include hours when stack concentrations were above the regulatory limit during periods exempt by regulation for startup, shutdown, and monitoring equipment malfunction. We are expanding our existing program to analyze and reduce air emissions even during these exempt periods.

### Facilities operate below emission limits

When our facilities are on-line, they achieve a nominal compliance rate of 99.9 percent, with emissions well below established legal limits.





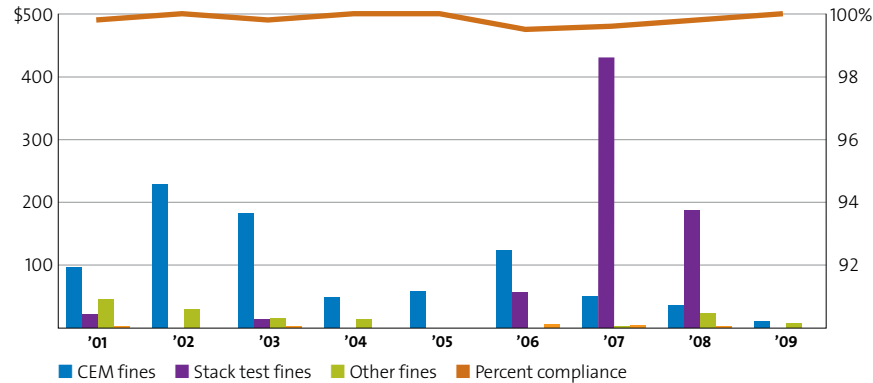
## Reference methods

Emissions of some pollutants, such as particulate matter, mercury and lead, are determined by manual stack measurements rather than the continuous monitoring system. In the past nine years, Covanta has conducted more than 6,000 tests and has identified a total of 21 events where emissions exceeded permitted limits. Our goal is 100% compliance; while we have achieved that for manual stack testing in several years, there is room for improvement. We have analyzed these events to understand the root cause and have successfully implemented a remedy for each. Seventeen of these events occurred at facilities acquired by Covanta, each of which had combustion and/or air pollution control equipment that is not representative of conventional technology and would not be used at a new facility. We have learned that compliance at these facilities warrants specific efforts to avoid other events. The four remaining events were one-time occurrences that were immediately remedied.

The following programs have been implemented to improve our compliance record and reach our goal of avoiding any future exceedances:

- A full-scale research program to evaluate alternative methods of managing air emissions
- A targeted program in the event of any failure or exceedance
- A policy linking compensation for all employees (facility and corporate) to 100 percent compliance with permit conditions. Noncompliance events have a direct negative effect on individual compensation

## Monetary fines (dollars in thousands) and compliance frequency (percentage)\*



\*Monetary penalties are allocated to the time period during which an event occurred (most events are themselves only minutes to several hours in duration). Fine levels are location-specific and are not indicative of risk to human health or the environment. Compliance percent identifies how often we complied with the test requirement. Our goal is 100% all the time.

Covanta has experienced a significant reduction in fines due to aggressive compliance efforts; however, events in 2007 and 2008 at facilities acquired by Covanta highlight the potential for greater variability from less effective combustion technologies. The 2007 fines were due primarily to single dioxin exceedances at two facilities that were due to either equipment malfunction and/or operator error; in both situations, effective remedies were implemented. The 2008 fines were for one site's exceedance of particulate limits, which has been fixed with an operating adjustment. Our goal of 100 percent compliance was met in 2009 for manual stack tests on all parameters, and will require targeted efforts on these technologies to continue meeting that goal. We did pay minor fines totaling \$16,000 that year for short-term exceedances of continuous emissions standards and for water-based events.

## Demonstrating progress: our focus on nitrogen oxide

In 2008 we focused on the reduction of Nitrogen Oxide (NOx) emissions at both existing and new EfW facilities. We reviewed the U.S. EPA's annual inventory of emissions from all U.S. EfW facilities between 1990 and 2005 and discovered that while emissions of mercury, cadmium, and lead dropped by nearly 95 percent, NOx emissions dropped only 24 percent. It was apparent to us that there was room for progress.

The reduction of NOx from 1990 to 2005 was adequate for compliance purposes but not adequate for our goal of a significant total reduction beyond compliance. NOx emissions are of particular interest because they are a precursor to the formation of both ground-level ozone and ammonium nitrate, which constitutes a significant portion of ambient particulate matter (PM 2.5).

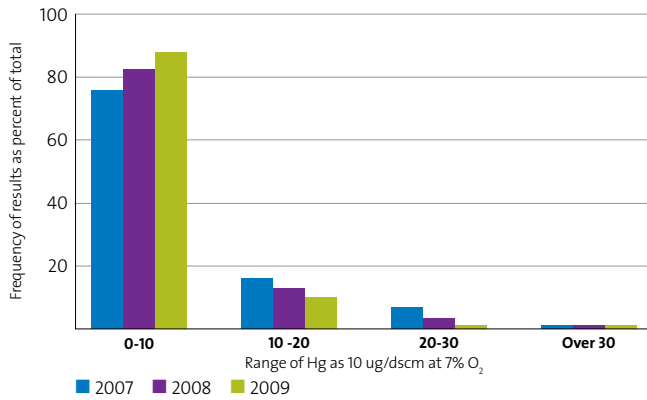
Covanta is implementing one of two proprietary technologies it has developed to reduce NOx at certain facilities, thus reducing NOx to below compliance limits. As a result of this technology, Covanta has reduced NOx to the lowest concentration in the North American EfW industry. An independent peer-reviewed assessment concluded that typical lifecycle NOx emissions from EfW are already lower than typical coal, oil and natural gas facilities per unit of electrical generation. Implementation of our advanced technology will further reduce lifecycle NOx emissions of EfW relative to traditional generation.



## Dioxin and mercury emissions

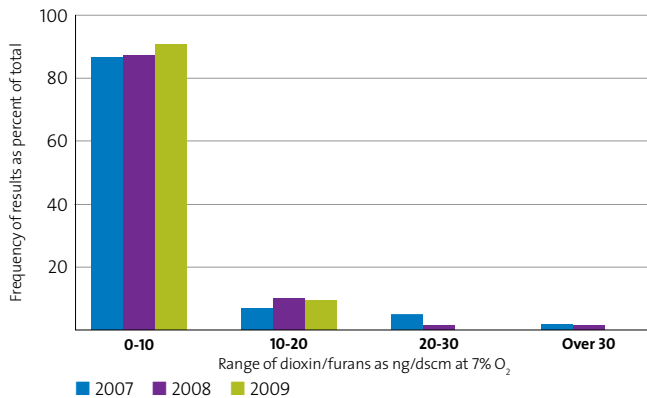
We understand that there is an elevated interest on the part of the public with regard to dioxin and mercury emissions. We have accordingly provided additional information on these pollutants. The Y-axis of each chart identifies how often a test result is within a certain range. This type of frequency analysis provides better insight into how we are

operating, as opposed to simply providing an average level of emissions, which does not indicate variability of performance. While our average emission concentration for both mercury and dioxins are well below the permit limits, our goal is to continue to reduce the variability and amount of these and all air emissions. The data demonstrate a shift to lower emissions as the Clean World Initiative is implemented.



### Mercury emissions

By 2009, 88 percent of mercury emissions were below 10 ug/dscm which is one-fifth of U.S. EPA's standard of 50 ug/dscm.

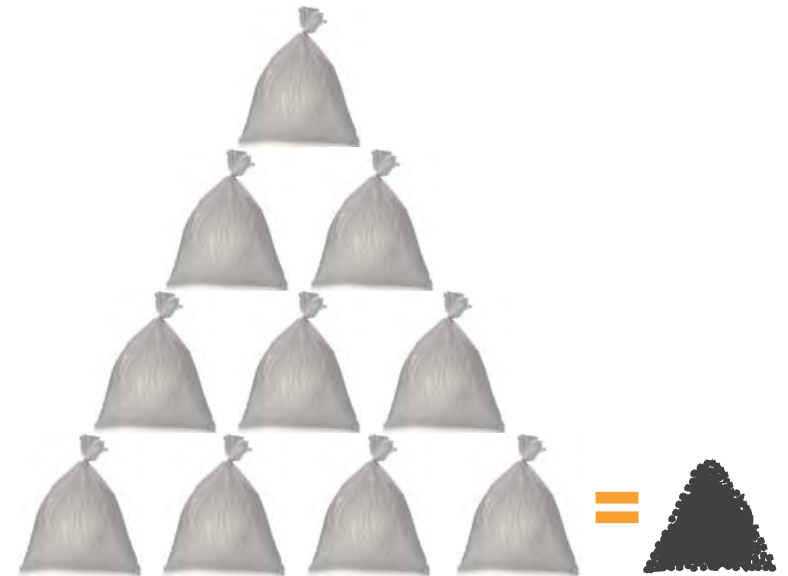


### Dioxin emissions

By 2009, 91 percent of dioxin emissions were below 10 ng/dscm which is one-third of U.S. EPA's standard of 30 ng/dscm for existing units.

Covanta's ash-management program has been in effect since 1994, when all EfW facilities were required to implement ash characterization tests to determine if the ash residue exhibited hazardous characteristics. Hundreds of tests performed since then have demonstrated that, under federal rules, our combined ash residue (bottom ash combined with air-pollution control residue) has never exhibited a hazardous waste characteristic. As such, we manage combined ash as a nonhazardous waste.

The combustion devices in our facilities use fully automatic control systems that convert MSW to energy, leaving behind inert ash comprising approximately 10 percent of the MSW's original volume and 25 percent of its original mass.



# Water management

During EfW generation, MSW is exposed to high heat in the combustion process. Water passes around the EfW heat-exchange equipment and is converted to steam, then captured and converted into electricity. Thus, as part of the EfW process, water is the essential link between society's waste and cleanly generated electricity.

On an annual basis, Covanta's EfW facilities reuse and otherwise save approximately 1.4 billion gallons of water from what would ordinarily be used, while generating needed energy. For example, in 2009, we:

- used more than 400 million gallons of water from secondary treatment facilities (grey water) avoiding the need to withdraw the same amount of freshwater from wells or local supplies
- used over 160 million gallons of landfill leachate as process water thereby saving water AND minimizing impact on a sensitive aquifer

EfW water impacts have also been minimized by reducing the amount of water discharged to the environment. As of 2009:

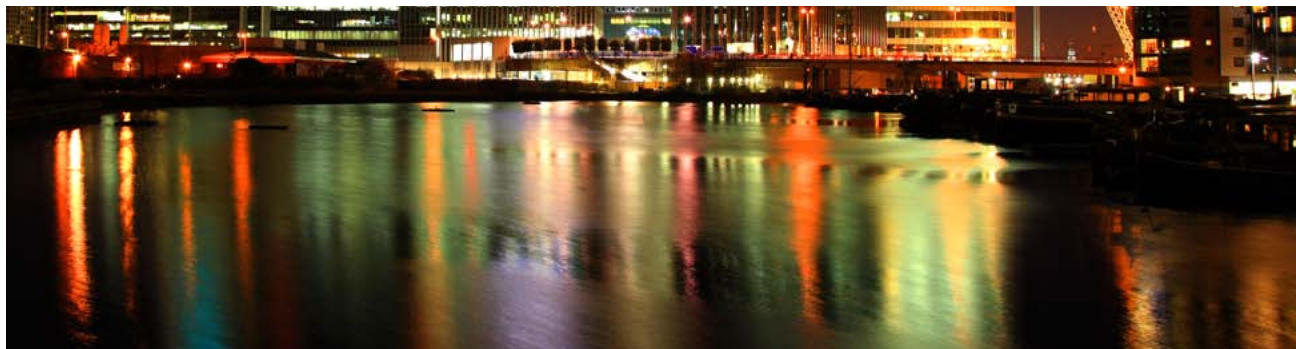
- Sixteen facilities do not discharge process wastewater (zero wastewater discharge) thanks to certain design and operational practices
- Other facilities, such as the one in Warren County, New Jersey, have implemented a water conservation program that reduces water usage and discharge

Covanta designs its facilities with water in mind. Many facilities have zero wastewater discharge, which we accomplish by reusing process wastewater, most often for quenching bottom ash to prevent dust. We are also implementing smaller-scale water management projects at many facilities. For example, we are shifting away from the use of chemical treatment to remove minerals from water by using reverse-osmosis technology that avoids the use of chemicals entirely.

## Eliminating water discharge at the Babylon EfW facility

The Covanta facility in Babylon, New York, offers an interesting example of both water reuse and zero water discharge. The Babylon facility has been extracting leachate from a nearby landfill for more than 20 years. This contaminated water is treated within the Babylon EfW facility and then used during the waste combustion process for cooling and for steam generation and energy production. The processed waste water is used yet again for internal purposes, such as ash wetting. As a result of these processes, the Babylon EfW facility discharges no wastewater to streams or the local waste water treatment system.

Water management is a key factor when considering the design and operation of any power plant—including an EfW facility.



# Land management

An EfW facility provides effective land management through two mechanisms:

- The volume of combined ash residue from EfW is approximately 10 percent of the volume of incoming MSW. As a consequence, landfilling of combined ash occupies far less space than MSW.
- EfW facilities can be located on brownfield sites (or sites previously used for industrial activity) which can be in close proximity to the area where MSW is generated. Many EfW facilities have been located on property adjacent to a landfill or in similar locations where land use is limited or restricted.

Collateral benefits of locating EfW facilities near communities where waste is generated include (1) reduced transportation impacts (for example, lower emissions from MSW transport and less noise from truck traffic); and (2) less line loss of electricity due to the close proximity of the power-generating site to the community that uses the power.





# R&D: cleaner energy through innovation



At Covanta, we continue to champion advanced EfW technologies aimed at improving our environmental performance and growing our business. Our current R&D strategy focuses on three major areas:

- **developing enhanced emission-control systems to further drive down plant emissions**
- **designing new systems to improve plant efficiency, operating performance, ash management, and economic competitiveness**
- **monitoring and evaluating commercial viability of alternative EfW conversion technologies**

Covanta is always searching for innovative ways to improve existing thermal processes and to convert MSW to a liquid fuel. Covanta has been investigating these technologies through independent peer review, direct inspection and pilot projects of technologies with the greatest promise. For example, we have constructed and are now operating a pilot plant that will evaluate the potential of converting shredded MSW and certain segregated components to diesel fuel. Other projects will investigate alternative processes for the thermal treatment of MSW.

## R&D history in the United States

**1987**

Covanta installed the first semi-dry scrubbing system in the United States, which changed the design of EfW facilities across the industry and helped to demonstrate that lower emission levels could be achieved on a continuous basis.

**1990**

Covanta provided the test site for U.S. EPA's mercury field demonstration program, that evaluated the potential of carbon injection to remove mercury from flue gas. The project also evaluated the stability of the reaction products to ensure that mercury emissions were being controlled rather than simply being re-located from flue gas to ash residue.

**2007**

Covanta installed the first Fourier Transform Infrared Spectroscopy (FTIR) CEM system for ammonia measurement in the United States helping to demonstrate that ammonia emissions can be maintained at a low level while controlling NOx to a low level.

**2007**

Covanta, with the cooperation of its sponsoring communities, has implemented a multi-year effort to advance reduction of NOx through various technologies that have yielded the lowest NOx emissions of an EfW facility in the United States.

**2009**

Covanta is evaluating the reliability of mercury and particulate monitors at an EfW facility.



## Managing the environmental impacts of our corporate offices

The majority of our efforts to reduce our energy use and environmental impacts take place at EfW facilities across the country. In addition, we implemented sustainable practices at our corporate office in Fairfield, New Jersey and expect to obtain Leadership in Energy and Environmental Design (LEED) certification for our new corporate headquarters, to which we will relocate in early 2011.



## Waste and materials management

We minimize the number of printers in the building.

Printer cartridges managed by Xerox are recycled or combusted for energy recovery at a Covanta EfW facility. Other cartridges are managed by HP in a similar practice.

We have placed recycling containers throughout the building for collection of paper, cans, and plastic, which are managed through a contracted vendor.

We minimize the use of paper cups by providing reusable tumblers and mugs.

All copy machines use 30 percent recycled paper, and all Covanta stationary as well as our Annual Report and various other corporate documents are printed on recycled stock.

We use “green” cleaning products.

“Green” products are prominently displayed as “first choice” in our Staples/Covanta supply preferences, which encourages employees to buy green products.

We contract with Dell e-Waste to recycle used computer equipment and invite employees to bring in their personal e-waste for recycling.



## Energy management

Motion detectors are provided throughout the facility in larger conference rooms, bathrooms, kitchen, locker rooms, and utility rooms.

Tinting is installed on the exterior glass to minimize additional energy loads.

High-efficiency lighting is installed throughout the building.

Thermostat heating/cooling parameters are set throughout the building at reasonable comfort levels that still minimize energy load.

PC power-saving settings are in place across the organization.



## Employee involvement

We are involving our employees in our efforts to improve the environmental performance of our operations. For example, in 2008 we implemented our Green Teams program, under which employees would meet without direct management oversight to find ways to improve environmental performance at the facilities. This program allowed staff to take initiative, be entrepreneurial and help to make significant improvements to our operations and our client services.

# This is meaningful work that inspires our people.







## Covanta's approach

We seek to maintain safe working environments that respect employees' rights, provide for professional development and rewarding work, ensure fair compensation, promote diversity and creativity and allow for the balancing of work and personal commitments. It's a tall order, and we perform better on some fronts than on others. For those areas in which we fall short, we are working to set goals and better understand how we can improve.



## Health and safety

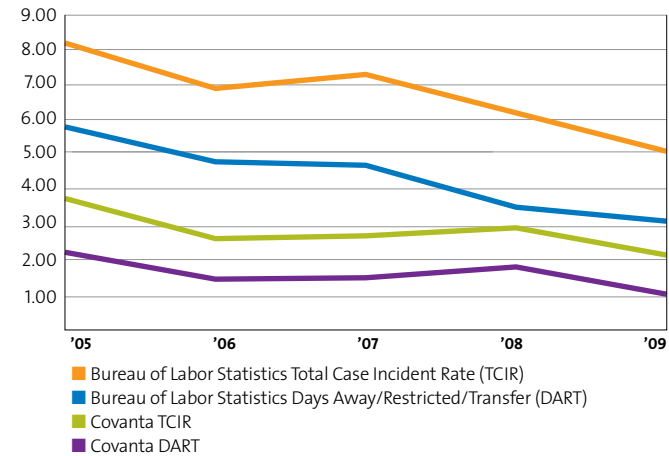
Our commitment to safety improves our ability to be competitive, enhances our reputation, and maintains consistent work quality and productivity.

We implemented a comprehensive health and safety program at all Covanta facilities more than 15 years ago. Over the years, we have succeeded in reducing accident and incident rates, as well as fostering a work ethic that promotes the health and safety of every employee, contractor, visitor, customer and community that Covanta serves.

**We recognize that safety is good business.** Excellence in safety and health affords us the opportunity for both direct and indirect cost control and drives quality, efficiency and profitability. Accordingly, we reward our employees for engaging in proactive behavior that helps us to improve safety performance—for

example, reporting unsafe activities or taking action that enables us to avoid an incident.

Over time, Covanta has seen improvement in its safety and health rates. But we have also seen variability on a year-to-year basis. For example, Covanta's 2008 rates were somewhat higher than the 2007 rates. Performance was steady and strong through August 2008, but rates increased in an unprecedented manner in September 2008, in conjunction with the severe decline in the economy during that same period. In response, each Covanta region created a safety-recovery program featuring elements such as increased hazard recognition and



### Safety performance

Covanta's TCIR and DART rates since 2005 consistently outperform the average rates for the electrical power generating industry.

### Emergency response

Covanta has developed Emergency Action Plans (EAPs) for each community in which we operate. We view emergency preparedness as a natural extension of our Health and Safety program that considers the safety of all employees and community members to be everyone's responsibility.

EAPs are written to comply with OSHA regulations and additional local regulatory requirements. Facility staff are required to complete an exam testing their understanding and awareness of EAP provisions upon start of employment, and to go through an annual certification process.





additional sessions with employees to get them refocused on safety in the workplace.

These efforts led to improved safety statistics in 2009. While we are pleased with the progress we have made, we recognize that we have additional opportunities for improvement.

**We are in the process of evaluating how we can make further progress.**

We have implemented employee training designed to facilitate greater understanding of and commitment to compliance with governmental and company occupational safety and health standards, policies and procedures. Management at all levels—facility, regional



and corporate—take responsibility for employee compliance with these requirements by implementing safer practices, training employees on safety rules and implementing corrective measures when necessary.

We also require that all contractors and subcontractors receive a pre-job task briefing to ensure that all who work on our premises understand the various risks and how to mitigate them. In addition, we have included contingency plans and disaster and emergency-management policies and procedures in both the facility emergency action plans and the corporate crisis management plan.



**Safety excellence programs and external recognition**

The majority of Covanta's domestic facilities participate in the Voluntary Protection Program (VPP) of the U.S. Occupational Safety and Health Administration (OSHA). Under the VPP, management, labor and OSHA together establish cooperative relationships at workplaces to implement a comprehensive safety and health management system. Acceptance into VPP is OSHA's official recognition of the

outstanding efforts of employers and employees to achieve exemplary occupational safety and health policies, procedures and practices.

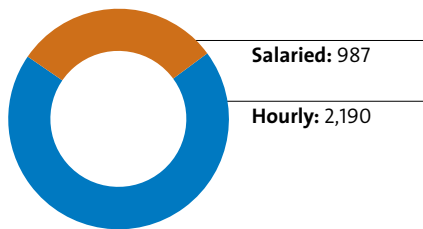
Covanta is among the top 10 companies in the United States to enter the majority of its operating locations into the OSHA VPP STAR program. Covanta has led over 30 of its locations into the VPP STAR ranks of excellence.





# Workforce development

## Total U.S. employees



During more than 20 years of operation, we have developed an extraordinary degree of experience and expertise at every level of our organization. From our front-line operators to our senior management, we employ many of the industry's top experts in operations, environmental engineering, combustion control and plant maintenance. It is their talent and skill that have allowed us to develop superior safety programs and consistently lead the industry in technological innovations and operational performance.

## Covanta's North American workforce

Region	Salaried	Hourly	Total	# Terminations	Turnover rate (%)
Mid-Atlantic	117	436	553	35	6.3
West	82	352	434	38	8.8
New England	124	424	548	42	7.7
NY/NJ	121	376	497	48	9.6
South	70	190	260	10	3.8
Great Lakes	83	292	375	21	5.6
Covanta Field Services	15	110	125	12	9.6
Corporate Headquarters	375	10	385	19	4.9
<b>Total</b>	<b>987</b>	<b>2,190</b>	<b>3,177</b>	<b>225</b>	<b>7.1</b>
Female	177	151	328	23	7.0
Male	810	2,039	2,849	202	7.1
Age less than 40	231	911	1,142	107	9.4
Age 40 and over	756	1,279	2,035	118	5.8

U.S. Department of Labor Total Separations Rate	Turnover rate (%)
Total Trade, Transportation & Utilities	10.9
Covanta Energy	7.1

In building and maintaining our workforce, we are guided by our talent-management and local-hiring policies as well as laws and regulations. Covanta EfW facilities provide stable, well-paying green jobs for local operators and workers. In addition, we conduct an annual review of employees' compliance with our [Policy of Business Conduct](#).

**Covanta operations grew during 2008** with the acquisition of several biomass facilities and transfer stations. In 2009 our growth continued, resulting in the acquisition of six EfW facilities and three transfer

stations. As of the end of 2009, our North American workforce totaled nearly 3,200 employees, two-thirds of which are hourly and the rest salaried.

Based on Covanta's size, and when compared with that of other companies in our sector, our turnover rate is within the normal range or slightly better than average. We closely monitor turnover on a quarterly basis by region, job category, age, gender and race, and we undertake weekly staffing reporting in order to detect irregularities and identify issues.



### Employee training

Category	# of employees	Minimum hours per year per employee
Management	654	14
Professional/Administrative	578	14
Hourly	1,945	3

### Training, development and retention

The typical EfW worker joins Covanta early in his or her career and stays on for many years. We provide employees with the opportunity to continue learning, to refresh their skills and to train on a regular basis to keep abreast of new procedures and technology. As a result, Covanta benefits by building an experienced and well-trained workforce. Currently, 60 percent of our employees are between 40 and 60 years of age, so we have identified areas at the facility level to ensure that retirement turnover does not leave a gap and that we have in place strong succession plans. Due to the highly physical nature of many Covanta jobs, we also have programs to keep employees of all ages healthy.

**Employee development is a key concern at Covanta.** Covanta's education assistance program provides financial support for

employees to broaden their knowledge, skills and effectiveness while also helping prepare them for other positions in the company to which they may reasonably aspire. In 2009, this program allocated a total of more than US\$144,000 to 41 beneficiaries.

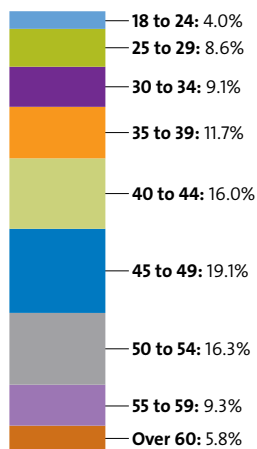
To encourage and recognize leadership and innovation, Covanta has established an Award for Excellence and an Over the Top Award program. Employees can nominate their fellow coworkers for these awards. There were 66 award recipients in 2009.

We offer a variety of core, professional and management/supervisory training programs to help strengthen skills in the areas of communication, interpersonal skills and performance management. In addition, we provide several human resources compliance programs to help strengthen employee relations and to promote a work environment that is free of discrimination. Employees also have the opportunity to attend

outside professional training programs and seminars based on personal development plans.

**All employees are required to complete a minimum number of hours of training or a specific program each year.** The number of hours and type of training required depends on each employee's classification. While we centrally track training to ensure that employees receive the training required, the figures shown do not reflect the depth or reach of our overall training program because employees undergo various courses at the facility level, the hours and type of which are not tracked. We are, however, expanding our tracking system in order to centrally log all hours of training provided at each of our facilities nationwide. A centralized database is currently under development to track courses, type of training, and number of actual training hours by employee, beginning with Human Resources Compliance programs.

### Workforce by age distribution year-end 2009







## Compensation and benefits

Our 2009 wage study revealed that our base pay rates are above state and federal minimum wage rates. On average, total compensation at Covanta is competitive with the market median. We offer a comprehensive benefits program that includes medical, dental and vision care. Covanta offers a 401(k) retirement benefit, providing a maximum company match of four percent. Covanta also offers other benefits such as life insurance, AD&D insurance, short- and long-term disability plans, supplemental insurance plans, an employee assistance program, a financial planning and assistance plan and optional legal assistance plan.



## Engaging with employees

In 2008, for the very first time, we surveyed several facilities (primarily in the Northeast region) to determine employee level of satisfaction and areas in which we need to improve performance. In 2009, our Employee Opinion Survey targeted the West Region facilities (four facilities participated). Participation was high with more than 600 employees participating in the survey. The survey sought employee feedback in the following areas:

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Pay and benefits

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Advancement

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Training

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Work relations

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Working conditions

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Communication

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Company pride

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Management

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Supervision

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Each question was rated on a scale of 1- 7 with 7 being the highest score. Overall the survey results were positive, with an average rating of 5 (favorable) received across survey categories. In most cases, a ranking of 4, or neutral, was our lowest rating.

As an additional effort to engage employees and gather more detailed information, employees at the facilities surveyed were invited to participate in focus groups. Using survey and focus group data, three categories were identified for areas of improvement: (1) compensation (pay & benefits), (2) advancement/training and (3) communications. Committees were formed to address each of the key categories and subsequently outline action plans.

To address pay concerns among operations and maintenance employees, Covanta formed a compensation committee comprising senior



corporate managers, human resources and facility managers. A wage market analysis was conducted to review these employees' pay levels per geographic region, and Covanta formed a technical training and progression task force. These actions were undertaken to:

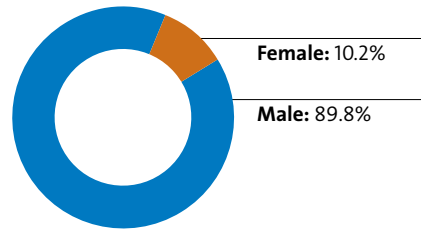
1. Streamline job titles and establish job descriptions
2. Establish skill blocks and progression levels; align with pay rates
3. Implement an Operator Qualification Program to enhance employee advancement

The technical training and progression task force merged with the compensation committee to align the compensation and advancement/training categories. Lastly, a corporate communications committee was formed to review corporate



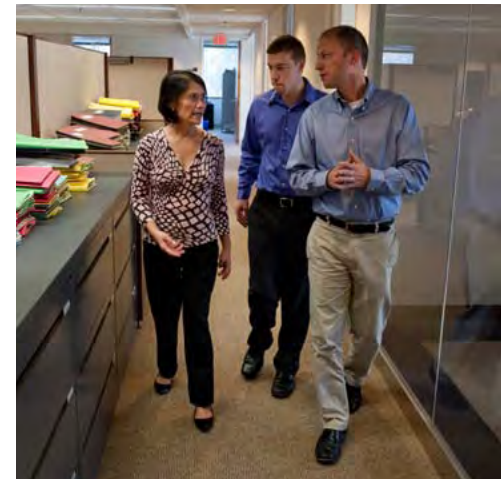


**Workforce by gender  
year-end 2009**



**Workforce by ethnicity  
year-end 2009**

Ethnicity	Percentage
American Indian or Alaskan	0.3%
Asian	5.3%
Black or African American	12.5%
Hawaiian/Pacific Islander	0.4%
Hispanic or Latino	8.5%
Two or more races	1.1%
Unknown	1.5%
White	70.4%



and facility communications. The committee has established the following goals:

1. Determine how employees are currently learning and sharing company and industry news
2. Evaluate the current communication tools that exist at the facility and corporate level to determine how they can best be leveraged
3. Make recommendations to improve employee communications

To increase companywide interaction, the corporate communications department has developed an employee newsletter comprising news submitted by employees and facilities, personal and facility anecdotes, helpful technology tips, health and safety information and HR/benefits updates.

## Diversity

Because our hiring is always locally based, our workforce composition mainly reflects the ethnic diversity of the neighborhoods and communities in which our facilities are located. The male-to-female employee ratio is not balanced, which is likely due to the physical nature of many jobs at Covanta facilities.

**We recognize, however, that the physical nature of the work should not be a barrier to entry for women in our business.** We are focusing our efforts on attracting and retaining more qualified female applicants by attending job fairs and utilizing recruitment sources that attract and target female candidates. In addition, basic salaries for men average 4 percent more than for women. The

rate of employee turnover for women, and accordingly our retention rates for women, are comparable to those of the sector as a whole and are slightly higher than for male employees.

We comply with annual equal employment opportunity reporting requirements, affirmative-action planning and reporting standards and all state and federal posting rules. All employees undergo an annual sexual harassment, diversity and civil-treatment training. Covanta has not been adjudged or been found liable for unlawful discrimination against any employee because of race, gender, age, ethnicity, disability or any other protected characteristic or status.

## Union representation

Covanta recognizes employees' rights to either maintain a direct relationship with management or choose to be represented by a union. Of our nearly 3,200 facility staff, approximately 12 percent of our employees are represented by a union. Some of these union arrangements have been in place for decades, and we have been able to repeatedly negotiate fair contracts. Covanta enjoys an enviable 96 percent retention rate of unionized workers that is well in excess of the industry average retention rate of 80 percent.

We are currently party to eight collective bargaining agreements. In April 2010, we reached a first-time agreement with the Utility Workers Union of America (UWUA) at our Rochester, Massachusetts facility. More than 70 employees from our unionized facilities participate in formal joint management-worker health and safety committees that help monitor and advise management on health and safety programs.



Strong community relationships are central to our mission.



# Community engagement

We have a long history of interacting and engaging with our communities. We are currently in the process of formalizing our community relations and environmental justice programs by taking stock of our current situation and building company-wide policies and engagement procedures for our facilities.



A new 1,500 ton per day EfW facility has the potential to generate about US\$1 billion in direct and indirect economic activity, providing up to 1,000 construction jobs and as many as 100 permanent jobs. In addition, these facilities purchase many goods and services locally, further supporting the community.

Covanta has promoted direct engagement with client communities since 1987 through a Partners Conference. The Partners Conference is an opportunity for clients and Covanta to share information through open dialogue, including feedback on surveys designed to identify key evolving issues. The engagement addresses both site-specific and broader issues.

## Engagement tailored to local community needs

Each of Covanta's 41 North American EfW facilities have been involved in a variety of programs with their local communities, reflecting the unique circumstances and opportunities at each site. The scope and nature of initial engagement is normally determined during the permitting phase of a project, when the host municipality is responsible for engagement and Covanta is a contractor supplying services.

Twenty years ago, Covanta's community engagement role was typically limited to developing and distributing technical information. Initial meetings with community stakeholders and groups, often referenced as Solid Waste Advisory Councils (SWACs), for these new facilities were often adversarial. Community members expressed concerns regarding facility impact to the local population through air emissions, truck traffic, noise and other impacts and often lacked confidence

in the municipal decision-makers, contractors such as Covanta and the state and federal agencies involved in the permitting process.

Over the years, our contribution has shifted. We take a much more active role in establishing a variety of local communications efforts to promote information sharing between the municipality, Covanta and SWACs. Today, we've found that a majority of these SWACs and similar groups have disbanded. We believe that this development is due to significant advances in pollution control technology and operational processes at EfW facilities, as well as improvements in community engagement itself, thus addressing the concerns and questions initially raised by these groups.

This perspective is supported by the absence of public opposition throughout the permitting process required to expand two EfW facilities in Florida, in contrast to the original hearings that were highly contentious. Despite the opportunity for public involvement at several steps in the process, there were no witnesses or comments filed during the hearing phase of the permit process. The elected officials in charge of the original and expanded facility believe that the measureable improvement in public opinion is due to the successful operation of the facility and the lack of any local problems.



## Building our approach to community engagement

While we do not yet have an overarching policy or centralized approach to community engagement, we have taken the first steps to establish a company-wide community engagement program by tracking and documenting all past and ongoing community programs. Over the course of the next two years, we will build on this effort to develop a centralized program that can be used to advise facilities of different possibilities for community engagement, assist in implementing projects, track the benefits and impacts of engagements and help facilities learn and benefit from efforts at other sites.

## Community programs

Our community programs are centered mainly around waste disposal and recycling. We maintain volunteer programs at 20 facilities to assist in cleaning up local rivers, streets and parks and to participate in 10 local household hazardous waste programs. In addition, we stay involved in our communities in other ways. We sponsor 30 programs to support local sports teams, food pantries, scholarships and cell phones for soldiers programs.

Below are some additional examples of Covanta's key community programs:

### Mercury and toxics reduction.

Covanta believes that the best mechanism for preventing releases of mercury and other toxics into the environment is by reducing their

use in consumer products. In order to achieve that goal, we are Sustaining Partners of the [Product Stewardship Institute](#) and actively support legislation that would eliminate the use of mercury in consumer products—and if used, make the manufacturer responsible for the disposal of these products.

In the absence of a nationwide mechanism to reduce or manage mercury in consumer products, Covanta has been implementing mercury outreach programs since 2000 to inform the public that mercury-bearing items, such as thermometers and thermostats, should not be discarded with other MSW. The initial campaign, which began in Massachusetts, has been expanded through a focused effort over the past two years to become

a nationwide campaign. In the 18-month period beginning in January 2009 we have helped to establish and/or operate 38 mercury collection programs that have resulted in the collection of 9,369 thermostats, 4,855 thermometers and 661 pounds of other mercury. A total of 764 pounds of mercury has been reduced from MSW through these efforts.

We have also implemented programs to collect PCB ballasts and electronic waste. A new program is targeting collection and destruction of pharmaceuticals that can contribute to contamination of the nation's waterways when homeowners dispose of these materials down a sink, toilet or with other trash.





**Fishing for Energy.** Covanta is involved in a variety of environmental programs that reach beyond the neighboring community. One of the most successful programs is “Fishing for Energy”, which has been implemented in 20 communities with Covanta facilities and has successfully disposed of more than 410 tons of fishing lines, nets and tackle that would have otherwise been left on the ocean floor. Covanta disposes of the fishing debris free of charge and converts into renewable energy. If left on the ocean floor the waste would contribute to local ecosystem destruction by entangling fish and other animals and damaging reefs and other critical habitats. Another is the Nets-to-Energy program implemented by

Covanta in Hawaii, together with the National Oceanic and Atmospheric Administration, Schnitzer Steel Hawaii Corporation, and other locally based suppliers. The Ocean Conservancy has identified public-private partnerships as the most important way to monitor and reduce marine debris and has specifically cited this program as an example.

**The Clinton Global Initiative and Project Kaisei.** An extension of our Fishing for Energy efforts is a collaboration started in 2009 with Project Kaisei through the Clinton Global Initiative. Covanta is working with Project Kaisei to begin to address the pollution caused by plastic waste accumulating at the North Pacific Gyre. A parallel effort is a program with students at Yale University where we are working to help better understand waste management practices that contribute to the formation of the Gyre and possible solutions to its eradication.

**Wildlife restoration.** Covanta Energy and the New Jersey Audubon Society entered into a partnership with the U.S. Fish and Wildlife Service as part of a wildlife habitat restoration project at Covanta’s Warren Energy Resource Recovery facility in Oxford, New Jersey. This habitat restoration project is part of Covanta’s participation in the New Jersey Audubon Corporate Stewardship Council.

## Performing a public service: disposal of infested wood in Union County, New Jersey

Our facilities often provide special waste-management services to the local community at no additional cost. One common service is the destruction of controlled substances collected by law-enforcement agencies. A rather unique service provided by our Union County Resource Recovery Facility in Rahway, New Jersey, was the destruction of hundreds of tons of infested wood managed by the state department of forestry. The controlled combustion process provided thermal destruction of the wood and foreign beetles thereby eliminating the potential infestation of other trees and saved the department of forestry the cost and burden of finding an alternative to safely manage the problem. Similar mitigation efforts have been provided by other facilities including our Covanta Springfield facility located in Agawam, Massachusetts.

Environmental Justice (EJ) is the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. The U.S. EPA established this definition for all communities and persons across the nation and created the Office of Environmental Justice in 1992 to integrate EJ into its policies, programs, and activities. The U.S. EPA demonstrated their continuing commitment to EJ through issuance of their July 2010 Interim Guidance for addressing EJ issues in U.S. EPA rules and regulations.

**Covanta’s commitment to EJ has evolved in a manner similar to the U.S. EPA, with specific efforts begun in the early 1990s evolving to a more comprehensive program.** We are presently developing an EJ policy that includes input from a variety of EJ experts and advocates. This policy will serve as the overarching strategy for future efforts and will recognize U.S. EPA’s most recent guidance.

## Analysis of facilities

Covanta considered the potential for EJ issues through application of the U.S. EPA’s [Toolkit for Assessing Potential Allegations of Environmental Injustice](#).

Our analysis initially focused on the decision-making process in site selection for EfW facilities and the degree of public participation. Although Covanta is the long-term operator of EfW facilities, Covanta typically becomes involved after the site-selection process has been made by others and, in particular, the community sponsoring the facility. This analysis was completed before the most-recent acquisition of six facilities; therefore, results are limited to 35 facilities.

Our analysis found that Covanta was not part of any site-selection process and was not involved in any decision on the degree of public involvement in locating its 35 domestic EfW facilities due to one of three reasons:

- Sites were pre-determined by municipalities and were the result of a public procurement process



- Facilities were already operating when acquired by Covanta
- Facilities acquired before operation had already completed the site-assignment process

The analysis helped us to understand that we might have inherited facilities that had environmental injustices associated with the site selection or the process behind the site selection. We performed an additional analysis on 35 facilities, screening them against EJ indicators from the EPA's tool kit. This analysis indicated that, preliminarily, 10 of these 35 facilities may be for environmental injustices. A more detailed analysis will be required to confirm the screening results and will be implemented as a part of the process for developing our EJ policy and procedures.

## Tracking of historical EJ situations

A survey of past experience has confirmed that several facilities have engaged with community groups around EJ issues. Two of these experiences are presented below:

**The Delaware County Resource Recovery Facility (DELCO)** was built in 1991 by Westinghouse, acquired by American Ref Fuel in 1997, and subsequently acquired by Covanta in 2005. This facility is located in Chester, Pennsylvania. In the early 1990s, the local community organized around concerns that Chester was disproportionately burdened by an abundance of industrial emissions sources. The Chester Residents Concerned for Quality Living (CRCQL) took legal action against the permitting agency, the Pennsylvania Department of Environmental Protection (PA DEP), alleging violation of the federal Civil Rights Act. While the Supreme Court did not provide a final ruling, their involvement had a major influence on the regulatory oversight and involvement by the PA DEP and the U.S. EPA. While DELCO was not involved in the litigation, it engaged with the CRCQL in 1999 to address community concerns about a proposed permit modification. This effort led to

the development of community projects and support from CRCQL, and ultimately, the permit issued with terms requested by both the facility and CRCQL.

As part of its ongoing community engagement effort, Covanta has provided funding for local projects, such as an intern program, local athletics, cleanup programs, a college scholarship program and support for the Chester Environmental Partnership. In addition, the facility continues to provide funding and personnel for the County Household Hazardous Waste Program.

**The Springfield Resource Recovery Facility (Springfield)** in Massachusetts began operation in the 1990s, and throughout its initial history received odor complaints from several surrounding communities. This facility was designed, constructed and operated by Fluor Daniel and was then acquired by Energy Answers; Covanta assumed ownership in 2008. Determination of the source of the odor was complicated by the fact that the Springfield Facility is located beside a regional wastewater treatment plant and across the street from a major composting operation located on an uncapped landfill—both known potential odor sources. We manage odors at the Springfield Facility by keeping MSW in an enclosed building that is maintained under negative pressure. Potentially odorous air from the waste-receiving areas is drawn into the boilers for use in the combustion process. For this reason, Covanta was confident that the facility was not the source of odor identified by the community.

Nevertheless, upon assuming operational responsibility for the facility, Covanta has helped to maintain a committee with representatives from each of the sources that work together to identify and solve odor issues. To this day, monthly meetings are held during the summer and particular attention is paid to the timing of outside activities across the river at the Basketball Hall of Fame, city parks and other regional venues. These meetings continue to serve as a reminder that all of these facilities must maintain proper operating procedures in order to maintain their successful record of mitigating unwanted odors.

We will continue to work to ensure that we are addressing the needs of the communities with respect to our operations by maintaining healthy relationships with the community through interaction with community leaders, our clients and others interested in our operations.





# Covanta Energy Corporation sustainability policy

## Vision

It is in the best interests of our company and society as a whole that our company moves along the path to sustainability. To that end, we will strive to achieve the following vision of performance, and will publicly communicate this commitment and periodically report our progress and challenges in fulfilling it:

### 1. Economic success: the wise use of financial resources

#### a. Company economic prosperity

We will:

- Conduct our business to prosper economically and create long-term value for our shareholders
- Invest in research and development to expand and/or improve our core competency

#### b. Community economic prosperity

We will help our community prosper economically in three ways:

- seek to employ local people, purchase goods and services locally, and pay taxes
- provide cost competitive and reliable waste disposal and energy generation
- participate in civic and philanthropic efforts

### 2. Social responsibility: respect for people

#### a. Fair dealing with customers

We will be honest and fair with our customers, compete ethically for their business, respect their privacy, anticipate their needs, and provide them with safe and effective products and services while taking into account sustainability concerns.

#### b. Respect for employees

We will treat our employees in a respectful, fair, and non-exploitative way, especially with regard to compensation and benefits; promotion; training and development; open, constructive dialogue with management; involvement in decision-making; working conditions that are safe, healthy and non-coercive; privacy rights; labor law rights; employment-termination practices; and work-life balance. We will ensure that all employees have the necessary information, resources and training to make informed decisions on environmental and health and safety matters.

#### c. Diversity, fair hiring practices

We will promote diversity and a culture of inclusion, and use hiring practices that are fair, responsible, non-discriminatory, and non-exploitative for our employees and board members.

#### d. Responsible governance

We will manage our risks appropriately, use our economic power responsibly, and operate our business in a way that is ethical and legal.

#### e. Respect for stakeholders

We will be transparent, respectful and fair to local populations, investors, suppliers, and other stakeholders outside of our organization who may be affected by our operations. We will engage our key stakeholders to understand their needs and seek relationships with them based on integrity. We will work collaboratively towards a good neighbor relationship with our communities, governments, business partners, and supply chain to enhance the well-being of others.

### 3. Environmental responsibility: respect for life; and the wise management and use of natural resources

#### a. Resource conservation

We will minimize our impact to the environment by conserving energy and natural resources to the extent practicable. We will promote sound materials and energy management by encouraging pollution prevention at the source, material reuse, recycling, and recovery of materials and energy through energy-from-waste.

#### b. Waste prevention and management

We will reduce to the extent practicable the solid waste and emissions of greenhouse gases and other harmful air pollutants from our operations and will maintain and implement programs to ensure compliance with all applicable environmental regulations.

#### c. Environmental risk control and restoration

We will minimize the risk of spills and other potentially harmful environmental incidents, restore the environment in case of an event and enhance it to better support biodiversity.

#### d. Reduction of supply chain impacts

We will work with others in our supply chain to help minimize adverse environmental impacts and risks and to optimize environmental benefits.

#### e. Collaboration with communities

We will collaborate with our communities to protect and improve the environment.

# Performance

## Economic\*\*

(data for Covanta Holding Corp., including all global operations, in thousands USD)	2009	2008	2007
<b>Operating revenue</b>			
Waste and service revenues	919,604	934,527	864,396
Electricity and steam sales	580,248	660,616	498,877
Other operating revenues	50,615	69,110	69,814
<b>Total operating revenues</b>	<b>1,550,467</b>	<b>1,664,253</b>	<b>1,433,087</b>
Operating revenue from International (% of total)	11.9%	16.8%	12.4%
<b>Operating expenses</b>			
Total operating expenses	1,354,632	1,408,288	1,196,477
<b>Income tax</b>			
Income tax expense	(50,044)	(84,561)	(24,483)
<b>Net income</b>			
Net income attributable to Covanta Holding Corporation	101,645	128,960	121,693
Net cash provided by operating activities	397,238	402,607	363,591
<b>Employees</b>			
Total employees	4,100	3,700	3,500

\*\*For complete information, please refer to Covanta's [2009 Annual Report](#) and [10-K filing](#).

## Operating

(data for U.S. and Canada)	2009	2008	2007
<b>Number of EfW facilities</b>	41	35	34
<b>MSW processed (million tons)</b>	17	16	15
<b>Net electricity generated (million MW hours)</b>	7.9	7.6	7.5
<b>Steam exported (thousand lbs)</b>	9.9	9.8	9.6
<b>Metal recovery (thousand tons)</b>	430	386	355
<b>GHG emissions avoided (million tons)</b>	17	16	15
<b>Environmental fines/penalties (thousands USD)</b>	16	245	481
<b>Stack test compliance as % of all tests (approx)</b>	100	99.8	99.6

## Social

(data for U.S. only)	2009	2008	2007
<b>Employees</b>			
Total employees	3,177	2,767	2,623
Hourly	2,190	1,915	1,808
Salaried	987	852	815
Turnover rate (%)	7.1	12.3	13.8
<b>Health &amp; safety</b>			
DART (Days Away/Restricted/Transfer Rate)	1.01	1.79	1.48
TCIR (Total Case Incident Rate)	2.13	2.91	2.68
Number of sites in OSHA VPP program	38	35	28
<b>Diversity</b>			
Women (% of total workforce)	10.2	10.2	9.7
Minorities (% of total workforce)	26.4	29.4	30.0

# Global Reporting Initiative (GRI) Content Index

● = fully addressed | ◐ = partially addressed | ○ = not addressed | N/R = not relevant



## 1. Strategy and Analysis

PROFILE DISCLOSURE	DESCRIPTION	COVERAGE	REFERENCE
1.1	Statement from the most senior decision-maker of the organization	●	pg. 2
1.2	Description of key impacts, risks, and opportunities.	●	pgs. 2, 5, 13, 45

## 2. Organizational Profile

2.1	Name of the organization.	●	pg. 4
2.2	Primary brands, products, and/or services.	●	pg. 4
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	●	pg. 4
2.4	Location of organization's headquarters.	●	pg. 4
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	●	pg. 4
2.6	Nature of ownership and legal form.	●	pg. 4
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	●	pg. 4
2.8	Scale of the reporting organization.	●	pg. 4
2.9	Significant changes during the reporting period regarding size, structure or ownership.	●	pg. 35
2.10	Awards received in the reporting period.	●	pg. 23

## 3. Report Parameters

3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	●	pg. 3
3.2	Date of most recent previous report (if any).	●	pg. 3
3.3	Reporting cycle (annual, biennial, etc.)	●	annual
3.4	Contact point for questions regarding the report or its contents.	●	pg. 3
3.5	Process for defining report content.	●	pg. 16
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers).	●	pg. 3
3.7	State any specific limitations on the scope or boundary of the report (see completeness principle for explanation of scope).	●	pg. 3

PROFILE DISCLOSURE	DESCRIPTION	COVERAGE	REFERENCE
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	●	pg. 3
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.	●	pg. 24
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	●	N/R
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	●	N/R
3.12	Table identifying the location of the Standard Disclosures in the report.	●	pgs. 46-51
3.13	Policy and current practice with regard to seeking external assurance for the report.	●	We are not seeking assurance at this time

## 4. Governance, Commitments, and Engagement

4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	●	pg. 20
4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	●	pg. 20
4.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.	●	pg. 20
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	●	pg. 20



PROFILE DISCLOSURE	DESCRIPTION	COVERAGE	REFERENCE
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	●	pg. 20
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	●	pg. 20
4.7	Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organization's strategy on economic, environmental, and social topics.	●	pg. 20
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	●	pg. 44
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	●	pg. 20
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	●	pg. 20
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	●	pg. 44
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	●	pg. 3
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: * Has positions in governance bodies; * Participates in projects or committees; * Provides substantive funding beyond routine membership dues; or * Views membership as strategic.	●	pgs. 15, 18
4.14	List of stakeholder groups engaged by the organization.	●	pg. 15
4.15	Basis for identification and selection of stakeholders with whom to engage.	●	pg. 15
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	●	pgs. 3, 15, 16, 37, 44
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	●	pgs. 15, 16, 37

Disclosures on Management Approach (DMAs)

PROFILE DISCLOSURE	DESCRIPTION	COVERAGE	REFERENCE
EC	Disclosure on Management Approach (Economic)	●	pgs. 13, 44; Annual report
EN	Disclosure on Management Approach (Environmental)	●	pgs. 13, 14, 44
LA	Disclosure on Management Approach (Labor)	●	pgs. 32, 44
HR	Disclosure on Management Approach (Human Rights)	●	pgs. 42, 44
SO	Disclosure on Management Approach (Society)	●	pgs. 16, 40, 44
PR	Disclosure on Management Approach (Product Responsibility)	●	pgs. 13, 44

Economic

EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	●	pg. 45
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	●	pgs. 10, 18, 24
EC3	Coverage of the organization's defined benefit plan obligations.	○	
EC4	Significant financial assistance received from government.	○	
EC5	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.	○	
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	○	
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	●	pg. 38
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	◐	pg. 40
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	●	pg. 40

## Global Reporting Initiative (GRI) Content Index (continued)

● = fully addressed | ◐ = partially addressed | ○ = not addressed | N/R = not relevant

### Environmental

PERFORMANCE INDICATOR	DESCRIPTION	COVERAGE	REFERENCE
EN1	Materials used by weight or volume.	●	pgs. 7, 5
EN2	Percentage of materials used that are recycled input materials.	○	
EN3	Direct energy consumption by primary energy source.	○	
EN4	Indirect energy consumption by primary source.	○	
EN5	Energy saved due to conservation and efficiency improvements.	○	
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	●	pgs. 6, 7
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	○	
EN8	Total water withdrawal by source.	○	
EN9	Water sources significantly affected by withdrawal of water.	○	
EN10	Percentage and total volume of water recycled and reused.	◐	pg. 28
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	○	
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	○	
EN13	Habitats protected or restored.	○	
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	○	
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	○	
EN16	Total direct and indirect greenhouse gas emissions by weight.	●	pgs. 24, 25
EN17	Other relevant indirect greenhouse gas emissions by weight.	○	

PERFORMANCE INDICATOR	DESCRIPTION	COVERAGE	REFERENCE
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	●	pgs. 24, 29
EN19	Emissions of ozone-depleting substances by weight.	○	
EN20	NOx, SOx, and other significant air emissions by type and weight.	●	pgs. 25-27
EN21	Total water discharge by quality and destination.	◐	pg. 28
EN22	Total weight of waste by type and disposal method.	○	
EN23	Total number and volume of significant spills.	○	
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	○	
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	○	
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	●	pgs. 26, 29
EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	●	N/R
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	●	pgs. 26, 45
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	○	
EN30	Total environmental protection expenditures and investments by type.	○	

Social: Labor Practices and Decent Work

PERFORMANCE INDICATOR	DESCRIPTION	COVERAGE	REFERENCE
LA1	Total workforce by employment type, employment contract, and region.	●	pg. 35
LA2	Total number and rate of employee turnover by age group, gender, and region.	●	pgs. 35, 45
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	●	pg. 37
LA4	Percentage of employees covered by collective bargaining agreements.	●	pg. 38
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	○	
LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	●	pg. 38
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region.	●	pgs. 33, 45
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	○	
LA9	Health and safety topics covered in formal agreements with trade unions.	○	
LA10	Average hours of training per year per employee by employee category.	●	pg. 36
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	●	pg. 36
LA12	Percentage of employees receiving regular performance and career development reviews.	●	pg. 36

PERFORMANCE INDICATOR	DESCRIPTION	COVERAGE	REFERENCE
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity.	●	pgs. 35, 38, 45
LA14	Ratio of basic salary of men to women by employee category.	●	pg. 38

Social: Human Rights

PERFORMANCE INDICATOR	DESCRIPTION	COVERAGE	REFERENCE
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.	●	pg. 42
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.	○	
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	○	
HR4	Total number of incidents of discrimination and actions taken.	○	
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.	○	
HR6	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor.	○	
HR7	Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of forced or compulsory labor.	○	
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	○	
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	○	



Social: Society

PERFORMANCE INDICATOR	DESCRIPTION	COVERAGE	REFERENCE
S01	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.	●	pg. 40
S02	Percentage and total number of business units analyzed for risks related to corruption.	○	
S03	Percentage of employees trained in organization's anti-corruption policies and procedures.	●	pg. 20
S04	Actions taken in response to incidents of corruption.	○	
S05	Public policy positions and participation in public policy development and lobbying.	●	pg. 16
S06	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	○	
S07	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.	○	
S08	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	○	

Social: Product Responsibility

PERFORMANCE INDICATOR	DESCRIPTION	COVERAGE	REFERENCE
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	●	pg. 29
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	○	
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	○	
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	○	
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	○	

PERFORMANCE INDICATOR	DESCRIPTION	COVERAGE	REFERENCE
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	○	
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.	○	
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	○	
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	○	

Electric Utility Sector Supplement

PERFORMANCE INDICATOR	DESCRIPTION	COVERAGE	REFERENCE
EU1	Installed capacity, broken down by primary energy source and by regulatory regime.	●	pgs. 4, 5; Annual report
EU2	Net energy output broken down by primary energy source and by regulatory regime.	●	pgs. 5, 7; Annual report
EU3	Number of residential, industrial, institutional and commercial customer accounts.	○	
EU4	Length of above and underground transmission and distribution lines by regulatory regime.	○	
EU5	Allocation of CO2e emissions allowances or equivalent, broken down by carbon trading framework.	○	
EU6	Management approach to ensure short and long-term electricity availability and reliability.	○	
EU7	Demand-side management programs including residential, commercial, institutional and industrial programs.	○	
EU8	Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development.	◐	pgs. 17, 18
EU9	Provisions for decommissioning of nuclear power sites.	○	

## Global Reporting Initiative (GRI) Content Index (continued)

● = fully addressed | ◐ = partially addressed | ○ = not addressed | N/R = not relevant

PERFORMANCE INDICATOR	DESCRIPTION	COVERAGE	REFERENCE
EU10	Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime.	○	
EU11	Average generation efficiency of thermal plants by energy source and by regulatory regime.	●	pg. 7
EU12	Transmission and distribution losses as a percentage of total energy.	○	
EU13	Biodiversity of offset habitats compared to the biodiversity of the affected areas.	○	
EU14	Programs and processes to ensure the availability of a skilled workforce.	●	pg. 36
EU15	Percentage of employees eligible to retire in the next 5 and 10 years broken down by job category and by region.	◐	pgs. 36
EU16	Policies and requirements regarding health and safety of employees and employees of contractors and subcontractors.	●	pgs. 33, 34
EU17	Days worked by contractor and subcontractor employees involved in construction, operation and maintenance activities.	○	
EU18	Percentage of contractor and subcontractor employees that have undergone relevant.	●	pg. 34
EU19	Stakeholder participation in the decision making process related to energy planning and infrastructure development.	●	pgs. 15, 40
EU20	Approach to managing the impacts of displacement.	○	
EU21	Contingency planning measures, disaster/emergency management plan and training programs, and recovery/restoration plans.	●	pg. 33
EU22	Number of people physically or economically displaced and compensation, broken down by type of project.	○	

PERFORMANCE INDICATOR	DESCRIPTION	COVERAGE	REFERENCE
EU23	Programs, including those in partnership with government, to improve or maintain access to electricity and customer support services.	○	
EU24	Practices to address language, cultural, low literacy and disability related barriers to accessing and safely using electricity and customer support services.	○	
EU25	Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases.	○	
EU26	Percentage of population unserved in licensed distribution or service areas.	○	
EU27	Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime.	○	
EU28	Power outage frequency.	○	
EU29	Average power outage duration.	○	
EU30	Average plant availability factor by energy source and by regulatory regime.	◐	pg. 7

## Acronyms used in this report

<b>ASTM</b>	American Society for Testing and Materials
<b>CO</b>	Carbon monoxide
<b>CO<sub>2</sub>E</b>	Carbon dioxide equivalents
<b>EAP</b>	Emergency action plan
<b>EfW</b>	Energy from waste
<b>EJ</b>	Environmental justice
<b>GHG</b>	Greenhouse gas
<b>GRI</b>	Global Reporting Initiative
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>LEED</b>	Leadership in Energy and Environmental Design
<b>MSW</b>	Municipal solid waste
<b>MSW-DST</b>	Municipal solid waste decision support tool
<b>NGO</b>	Non-governmental organization
<b>NO<sub>x</sub></b>	Nitrogen oxides
<b>SO<sub>2</sub></b>	Sulfur dioxide
<b>SO<sub>x</sub></b>	Sulfur oxides
<b>SWAC</b>	Solid waste advisory council
<b>U.S. EPA</b>	United States Environmental Protection Agency
<b>PM</b>	Particulate matter

## Cautionary note regarding forward-looking statements

Certain statements in this report may constitute “forward-looking” statements as defined in Section 27A of the Securities Act of 1933 (the “Securities Act”), Section 21E of the Securities Exchange Act of 1934 (the “Exchange Act”), the Private Securities Litigation Reform Act of 1995 (the “PSLRA”) or in releases made by the Securities and Exchange Commission (“SEC”), all as may be amended from time to time. Such forward-looking statements involve known and unknown risks, uncertainties and other important factors that could cause the actual results, performance or achievements of Covanta and its subsidiaries, or general industry or broader economic performance in global markets in which Covanta operates or competes, to differ materially from any future results, performance or achievements expressed or implied by such forward-looking statements. Statements that are not historical fact are forward-looking statements. Forward-looking statements can be identified by, among other things, the use of forward-looking language, such as the words “plan,” “believe,” “expect,” “anticipate,” “intend,” “estimate,” “project,” “may,” “will,” “would,” “could,” “should,” “seeks,” or “scheduled to,” or other similar words, or the negative of these terms or other variations of these terms or comparable language, or by discussion of strategy or intentions. These cautionary statements are being made pursuant to the Securities Act,

the Exchange Act and the PSLRA with the intention of obtaining the benefits of the “safe harbor” provisions of such laws. Covanta cautions investors that any forward-looking statements made by Covanta are not guarantees or indicative of future performance. Important assumptions and other important factors that could cause actual results to differ materially from those forward-looking statements with respect to Covanta, include, but are not limited to, the risk that Covanta may not successfully close its announced or planned acquisitions or projects in development and those factors, risks and uncertainties that are described in periodic securities filings by Covanta with the SEC. Although Covanta believes that its plans, intentions and expectations reflected in or suggested by such forward-looking statements are reasonable, actual results could differ materially from a projection or assumption in any forward-looking statements. Covanta’s future financial condition and results of operations, as well as any forward-looking statements, are subject to change and inherent risks and uncertainties. The forward-looking statements contained in this report are made only as of the date hereof and Covanta does not have or undertake any obligation to update or revise any forward-looking statements whether as a result of new information, subsequent events or otherwise, unless otherwise required by law.