Board of Directors Meeting Highlights
Held on May 18, 2017 at 9:00 AM
at the MRF Board Room

Bluewater Recycling Association

Waste Diversion – The Blue Box Today and Tomorrow

Implementation is underway to the Resource Recovery and Circular Economy Act (RRCEA). In particular, municipal governments will be transitioning from the current Blue Box program, which is run by municipalities and co-funded by producers, to an Extended Producer Responsibility (EPR) regime that requires producers to cover all end-of-life costs for waste. Eventually, producers will be fully responsible for meeting recovery targets for designated products and packaging.

The municipal role in this system will be evolving. AMO's Board has resolved that the municipal governments' best interest is to move the Blue Box to full producer funding sooner rather than later. The Ministry of Environment and Climate Change is asked to initiate the transition for the Blue Box program this year, with completion to the RRCEA by January 2019.

The AMO Board also directed staff to engage with its municipal partners – Regional Public Works Commissioners of Ontario (RPWCO), the Municipal Waste Association (MWA) and the City of Toronto, to create a municipal waste management entity. The transition and the future work for municipal governments within the new waste management framework requires a high degree of policy and implementation planning involving all the partners. Work on developing this entity has just begun.

In the interim, staff will continue to coordinate stakeholder work through use of existing funding from the Continuous Improvement Fund. This arrangement was approved by the Resource Productivity and Recovery Authority (formerly Waste Diversion Ontario).

We need to know more about significant post-transition issues such as diversion targets, geographic coverage requirements, and what materials will be designated. Until then, our municipal waste diversion programs will continue to provide the convenient, reliable waste services that residents depend on. Municipal governments may be approached by producers to provide post-transition collection and/or processing services for designated materials. We caution that it is too early for Councils to make informed decisions without having the 'rules of the road' defined through Regulations.

2017 Ontario Budget Highlights for Members

The Association is pleased to provide the following highlights on the 2017 Ontario Budget that relate to the waste management sector.

Budget Balanced in 2017

The Ontario government has delivered the first balanced budget since the 2008-09 recession. The Province remains on track to keep the budget balanced next year, also. The government's total expenditures will rise to $141 billion for the 2017-18 budget year, up from $135 billion in 2016-17 (See pages 239 to 241). There do not appear to be any tax implications in the budget related to the waste management sector.

Ministry of the Environment and Climate Change (MOECC)

MOECC's budget is increasing substantially due to new revenues being raised through the Province's cap-and-trade program. The Ministry will see its budget jump to $1.02 billion in 2017-18, up from $531 million in the previous year (See page 240).

Cap-and-trade proceeds

The provincial government raised $472 million in its first quarterly auction of emission allowances under Ontario's cap-and-trade program, and it intends to raise a total of $1.8 billion in 2017-18. Cap-and-trade revenues will drop to $1.4 billion annually starting in 2018-19.

Cap-and-trade funded projects (each could have applicability to the waste management sector)

Green Investment Fund Initiatives and GHG reducing programs:

The Province has set aside $410 million to invest in measures to reduce greenhouse gas emissions.

Supporting Municipal Governments in Reducing GHGs:

The government is investing $55 million to support municipal energy or climate change plans, as well as projects under the Municipal GHG Challenge Fund.

Preserving Agriculture, Lands and Forests:

The Province will invest $5 million to improve agricultural soil health and increase tree-planting.

Reducing and Preventing Food Waste

The government is introducing the Supermarket Recovery Program to redistribute food to Ontarians in need. This pilot program will receive a one-time investment of $600,000 to make grants available to food banks and other organizations "to expand their capacity to transport and store surplus perishable and prepared foods" (See page 86).

Reducing Electricity Costs for Businesses

The government is continuing to lower electricity costs for companies to help maintain a competitive business environment. Ontario is proposing to further expand the Industrial Conservation Initiative (ICI) program by reducing the eligibility threshold from one megawatt (MW) to 500 kilowatts (kW) for targeted manufacturing and industrial sectors.

This proposed change is in addition to the Province's existing actions to reduce electricity costs for businesses, such as providing ongoing annual support, totalling up to $120 million to qualifying large industrial facilities in northern Ontario, as well as ending the debt retirement charge (DRC) for commercial, industrial and all other electricity users as of April 1, 2018 (See page 23).

Changing Workplaces Review

The budget renews a commitment towards addressing recommendations associated the Changing Workplaces Review. These recommendations will address the following labour issues:

Whether more employees should be covered by labour relations protections and minimum standards;

How "employee" and "employer" are defined under employment and labour laws;

How to deal with the differential treatment of part-time and full-time employees;

What minimum standards should be in place for personal emergency leave; and,

Whether changes are required to better calibrate the protections for bargaining rights enshrined in the Labour Relations Act (See page 69).

Supporting Renewable Biodiesel in the Coloured Fuel Market

Ontario is proposing changes to allow biodiesel, a renewable alternative to fossil fuels, to be more widely available as part of Ontario's tax-exempt coloured fuel program. To do so, the Province is proposing legislative changes to the Fuel Tax Act, which includes adding a new category of registered dyers, who will be permitted to dye biodiesel that has not been blended, mixed or combined with any other type or grade of fuel. This new category of registered dyers would be exempt from the fuel transportation requirements currently imposed on all registered dyers (See page 282).

Federal Cannabis Legislation Tabled

The federal government tabled legislation to legalize marijuana on April 13. As expected, the Bills leave the bulk of decisions on age of majority, distribution, and retailing of marijuana to the provinces.

The Legislation:

Bill C-45, the Cannabis Act, would amend Canada's Criminal Code, Controlled Drugs and Substances Act and other current legislation to allow Canadian residents to sell, buy, possess, and grow marijuana before July of 2018. The legislation proposes:

• _limits of 30 grams of dried marijuana for individual possession for adults over the age of 18 years unless a higher age is set by a province;

• _authorizes the creation of a licensing system for marijuana growers and a tracking system for plants;

• _establishes penalties for possession of greater amounts of marijuana, trafficking outside of the proposed system, and distribution to minors;

• _provinces will have the ability to set their own distribution and other rules, or default to the federal requirements.

Bill C-46 amends the Criminal Code and other legislation to introduce new penalties for drugged driving, streamline drunk driving provisions. This Bill also allows police officers who suspect a person of driving while under the influence of drugs or alcohol to demand a bodily fluid sample.

Next Steps:

AMO is calling for municipal licensing of growers and retailers of marijuana to control where these businesses are located, to limit concentration and proximity to schools, daycares, and residential neighbourhoods.

AMO also wants resources so that municipal governments are not left holding the costs for increased policing, public health, and emergency services due to marijuana legalization. AMO is already engaged with the Province as it develops its approach to cannabis access and regulation. This work, through the AMO Marijuana Legalization Task Force, will continue, as will our advocacy.

New Owners Get Recycling Plant For $4 Million

Two waste and recycling veterans who teamed up to purchase the assets of financially troubled Entropex paid just over $4 million for the 180,000 square foot Lougar Street plant and business.

However, Rob Smith says the new owners, Tony Moucachen and Emmie Leung will fork out another $2.5 million to clean up the site and meet Ministry of Environment compliance orders.

Smith, a senior vice president with London – based MNP, the court appointed trustee says there are “sewage and drainage issue” that the new owners have to remediate over the next two years.

Entropex closed last summer after racking up more than $8 million in obligations to Scotia Bank and Roynat.

Moucachen who is the founder and president of Merlin Plastics Group of Delta, British Columbia and Leung the founder and CEO of Burlington–based Emterra Group swooped in to buy the assets and renamed the company ReVital Polymers Inc.

The facility will focus on various grades of plastics packaging and will recover both post – consumer and post – industrial rigid plastics, converting them into various commodity resins.

Moucachen and Leung have indicated they will restart ReVital Polymers in stages “that will reflect a fresh vision and mission”. Published reports suggest the revitalized company will concentrate on customized production to meet specific needs of its customers contributing to what the new owners describe as “more valuable and more sustainable products made from recycled content”.

Entropex, was crippled by plummeting prices for recycled resin, soaring power costs and what were described as “challenges” developing new markets for its products. Smith told First Monday “falling crude prices caused virgin plastic prices to tumble making it difficult to sell recycled plastic”.

Entropex had revenue of $40 to $45 million when it collapsed but didn’t have the financial strength to weather changing market conditions. The company had cash flow problems and had been struggling for several years.

Smith described the new owners as “industry veterans” with financial strength and the ability to adapt.

Entropex had 155 employees when it closed. Some have been rehired.

Smith says Entropex president Keith Bechard was instrumental in bring in the new owners.

“ReVital is offering programs and services that will improve recovery rates for producers and increase material value through better end-of-life management," Leung says. "Our high-quality postconsumer recycled resins generate greater economic and environmental returns on the three levels of materials management – for consumers, the economy and the environment."

Moucachen is the founder and president of Merlin Plastics Group, Delta, British Columbia, which serves customers throughout Canada and the United States. The company processes postindustrial and postconsumer rigid and flexible plastic packaging.

Leung is the founder and CEO of Emterra Group, headquartered in Burlington, Ontario. The company provides municipal, industrial, commercial and institutional customers a fully integrated approach to collecting, processing and marketing more than 500,000 tons of recyclables per year. The company also operates more than a dozen MRFs, including five single-stream recycling facilities.

Merlin Plastics and Emterra are business partners in another venture that processes and markets recyclables collected through British Columbia’s Multi-Material British Columbia extended producer responsibility program for packaging and printed paper.

Nespresso Bid To Recycle Coffee Pods

Nestlé bows to environmental backlash over popular home brewing system

Nespresso coffee capsules on a recycling bag. The bags in the Kensington and Chelsea trial will be purple. Photograph: Alamy

Coffee company Nespresso – part of Swiss multinational Nestlé – is to trial a scheme for consumers to recycle their used aluminium capsules for the first time in the UK, in the face of a growing environmental backlash against increasingly popular single-serve pods, many of which end up in landfill.

A six-month pilot, starting this week in the London borough of Kensington and Chelsea, will allow Nespresso Club members to recycle their used capsules through their council household recycling service, using special purple bags provided by the company. The borough's 190,000 residents will only be able to put out capsules made by Nespresso.

Most other capsules on the market are not made of aluminium, usually consisting of mixed plastic and sometimes foil, which require different recycling processes. The dregs of leftover coffee remaining in the pod also make them difficult to process in standard municipal recycling plants. Nespresso has defended its use of aluminium, saying it helps keep the coffee fresh.

The company said it was responding to its users, who have requested more convenient recycling through their local council-run scheme. The trial is part of a project to give customers more convenient recycling options.

The bags of aluminium capsules will be sent to Nespresso's recycling facility in Congleton, while the waste coffee grounds will be extracted and turned into compost. Nespresso capsules are included in other national recycling schemes such as the Green Dot programme in Germany as well as in a number of other countries, including France and Canada. But in the German city of Hamburg coffee capsules have been banned from state-run buildings as part of a drive to cut waste.

Nespresso introduced the first single-serve coffee machine in 1986, initially using only its own-brand pods. But after Nespresso's patents began to expire in 2012, competitors started to offer capsules and machines compatible with the Nespresso system.

Nestle would not say what proportion of its capsules are recycled, instead focusing on its recycling "capacity" – which it says is 100%. Market research company Mintel estimated the UK coffee pods market to be worth £182m in 2016 in its most recent study, up from £158m in 2015, and forecast to reach £206m this year. According to their research, 29% of Britons own a coffee pod machine.

The move was welcomed by Trewin Restorick, chief executive of environmental charity Hubbub, who said: "Nespresso pods are mainly aluminium and can be recycled whereas many of their competitors' pods are mixed plastic which currently can't be recycled. But using aluminium only makes sense from a resource point of view if the discarded aluminium is recycled, otherwise it is a very carbon intensive way for consumers to get their coffee. Nespresso needs to scale up the recycling process quickly."

The company's long-term ambition, a Nespresso spokeswoman said, was to enable more recycling of used capsules via council collection services.

China Cooler On Imports Of Recovered Paper

In Europe, export prices for the bulk grades of recovered fibre have suffered steep declines after buyers for the Chinese market opted to severely limit their purchasing activity.

For the UK, a large proportion of whose annual recovered paper exports of around 5 million tonnes are destined for China, OCC values have slumped from approaching £150 per tonne (Euro 177) in the first quarter to below £80 (around Euro 90). The decline has come despite decent demand in the UK and good orders from Continental Europe.

Chinese buyers have cut their recovered fibre orders in reaction to falling containerboard prices at home, thinner order files, generally more-than-adequate stocks of both recovered fibre and finished product, and steepling shipping freight rates. A UK recovered paper market expert comments: 'China has pressed the reset button - prices had simply gone too high.' And according to a buyer for one of China's major containerboard producers, prices are likely to struggle to improve greatly in the near term.

Plummeting prices have only added to the uncertainty prevailing in European recovered paper circles. This has been fuelled by, among other factors, strong rumours that China intends to intensify its inspection criteria as part of its National Sword initiative.

Canadians Recycle More Plastics, But Recyclers Crave More Material

North America: Around 322 million kilograms of post-consumer plastic packaging were collected for recycling in Canada in 2015, reports the Canadian Plastics Industry Association. The slight 0.4% (1.3 million kg) year-on-year increase is especially due to a larger volume of high density polyethylene bottles turning up at recycling centres around the country.

Canada's plastics ‘routinely remain’ in North America to be processed rather than moving to overseas markets, so says the Canadian Plastics Industry Association. It estimates that over 80% of plastic packaging can now be recycled.

The reported plastic quantities represent a net increase of 1.3 million kilograms. HDPE natural bottles provided the overall growth in 2015 with an increase of 5.7 million kilograms; all other categories combined had a decrease of 4.4 million kilograms.

‘We are proud to report that we are seeing slight increases in both the amounts of plastic material collected, and reported as reclaimed in Canada, which is up to 79% (~254 million kgs) from 78%,’ comments Carol Hochu, president and ceo of the association.

She stresses that the higher results are only one side of the coin. Canadian plastics recyclers want more material because they have underutilised capacity, Honchu adds. There is ‘ample opportunity’ for consumers and businesses to supply the nation’s recyclers with more plastics.

Figures revealed in the report "2015 Post-Consumer Plastics Recycling in Canada" are based on voluntary survey taken by 500 companies that handle recycled plastics in North America – ranging from re-claimers, exporters and material recovery facilities to brokers.

Unilever: 'Ground-Breaking' Pouch Recycling Plant Coming To Indonesia

Unilever is to open a pilot plant in Indonesia later this year for the recycling of plastic pouches. The facility will test the long-term commercial viability of the 'ground-breaking' CreaSolv process, developed in collaboration with Germany's Fraunhofer Institute.

'With this innovative pilot plant we can, for the first time ever, recycle high-value polymers from dirty, post-consumer, multi-layer sachets,' reports Dr Andreas Mäurer, the Fraunhofer Institute's department head of plastics recycling.

According to his calculations, the pilot plant will be capable of recovering 6 kg of pure polymers using the same energy as for the production of 1 kg of virgin polymer. The novel technology allows plastic to be recovered from sachets to create new sachets for Unilever products, thus ensuring ‘a full circular economy approach’.

The technology was initially developed as a means to separate brominated flame retardants from discarded electronics polymers.

‘Hundreds of billions of plastic sachets are thrown away globally every year,’ Unilever asserts. Indonesia is pinpointed as a ‘critical’ country, with most of its annual waste tally of almost 65 million tonnes being plastics. Roughly 1.5 million tonnes ends up in the world’s oceans.

‘We intend to make this technology open source and would hope to scale the technology with industry partners, so others - including our competitors - can use it,’ states David Blanchard, Unilever’s chief R&D officer.

It is claimed that, every year, between US$ 80 and US$ 120 billion is lost to the world economy because of inadequate recycling of plastics. ‘There is a clear economic case for delivering this process,’ Blanchard argues.

Unilever has pledged to manufacture packaging that is 100% recyclable, reusable or compostable by 2025.

Tire Recycling Firm Launches Legal Petition Against B.C. Government

A crumb rubber company has filed a legal challenge against what it called an unfair "monopoly" in B.C.'s used-tire recycling program that's keeping eco fees high and causing environmental harm.

Crumb Rubber Manufacturers Inc. recycles old tires into rubber products used in asphalt, sports fields and playground mulch. It has been trying to crack the B.C. market since 2014, but has been repeatedly rejected by Tire Stewardship B.C., an industry association that operates the province's tire-recycling program.

Only two processors are allowed to recycle tires in B.C. since the program was set up in 2007: Lehigh Northwest Cement incinerates tires for fuel — a practice the petition describes as "environmentally damaging" — while Western Rubber Products recycles them into crumb rubber and coloured landscaping mulch. Both companies receive incentives from TSBC to burn or recycle the tires.

The legal petition, filed in March in B.C. Supreme Court against the Ministry of Environment, director of waste management and TSBC, claims the companies were selected with no formal application process.

The current regime, as well as a 2014 moratorium on new processors, has led to a "government-sanctioned or approved industry monopoly," where the two companies "extract exorbitant rates from the public while at the same time not operating in an environmentally sound manner," said the petition.

It also claimed the lack of competition was driving high eco fees for consumers.

In the petition, Crumb Rubber Manufacturers outlined its plans to build a $10-million-to-$15-million, tire-processing facility that would provide up to 50 full-time jobs. It said it would also be able to go ahead with its plans even if eco fees were lowered to $3.

It pointed out that Ontario, where CRM also operates, has 13 registered recyclers handling 12 million passenger-tire equivalents, and has reduced its eco fee from $5.88 to $3.30 since 2009. In comparison, B.C. processes 3.8 million passenger-tire equivalents annually and charges $5 per tire for passenger vehicles. In 2015, TSBC collected $20.2 million in eco fees.

CRM said it had appealed to the environment minister and director of waste management to overturn TSBC's decision with no success. The minister and director are named in the petition.

Lawyer Richard Margetts, who represents TSBC, said both Lehigh Cement and Western Rubber were already in place as processors when TSBC assumed responsibility for the recycling program from the province in 2007. The moratorium is in place because the association believes there is no "heightened need" for other processors and is concerned new entrants could "undermine the overall stability" of the program, said Margetts. TSBC plans to file a response in the next couple of weeks. The petition's claims haven't been tested in court.

Slow Down, Move Over Law Needed in Ontario for Waste Collection Workers

Waste collection workers have one of the most dangerous jobs. Every day on the road they face the risk of being seriously injured or even killed by a distracted or impatient driver.

Last December, a Wisconsin city mourned the loss of a sanitation worker and local pastor who was struck by a Mustang that crashed into the back of a municipal garbage truck while he was collecting recyclables. According to FOX6 Now, the worker was found pinned between the car and the back of the truck before being taken to a local hospital where he later died from his injuries.

Closer to home, a worker in 2012 was struck by an SUV while collecting garbage in Ottawa and later died from his injuries. According to CTV News, the worker, who was 46 years old at the time of the accident, had just gotten engaged before he lost his life.

Incidents like these are tragically part of a larger problem. The Bureau of Labor Statistics in the United States found in its 2015 Census of Fatal Occupational Injuries Summary that refuse and recyclable material collection, as an occupation, had the fifth highest fatal work injury rate. In 2015, 33 waste collectors were killed on the job—a 22% increase from the previous year.

The risk is real. That's why it has been addressed by many jurisdictions across North America, including British Columbia, with new laws to require drivers to slow down and move over for waste collection workers and vehicles. Ontario, however, has not yet taken action.

It's been a decade and a half since the Ontario government passed legislation to make it mandatory to slow down and move over for emergency vehicles. The Highway Traffic Act was amended again in 2015 to extend the same protections to tow-truck drivers in the province. The penalties for breaking this law are serious. Drivers can receive a fine of $400 to $2,000 and three demerit points for their first infraction. While enforcement remains essential, this legal change has sent a clear message to drivers that the safety of roadside workers must take priority. Unfortunately, waste collectors still do not enjoy the same protections in Ontario.

British Columbia, by contrast, protects all roadside workers. In 2014, the BC government strengthened its Motor Vehicle Act to require drivers to slow down and move over for "all vehicles stopped alongside the road that have flashing red, blue, or yellow lights." This legislative update not only improved safety but also simplified traffic rules for drivers.

South of the border, more states continue to move forward on this issue. Last September, according to Waste Dive, New York became the 12th state to pass a law to require drivers to slow down and get around garbage trucks, and Connecticut may soon become the 13th if a bill with similar requirements is passed by the state's legislature.

With so many jurisdictions adopting this sensible reform, there's no reason that Ontario should be any different. We believe roadside workers deserve the same protections no matter where they live or what uniform they wear.

That is why the OWMA is calling for Ontario to bring its traffic laws into line with what is becoming the standard for roadside safety in North America. The time has now come for our province to pass a slow down, move over law for waste collection workers.

These changes will provide a safer working environment for waste collectors and help ensure they can safely go home to their families after a long day on the job.

New Jersey becomes 15th state to mandate Slow Down to Get Around

Governor Chris Christie signed bill A-4452/S-518 — otherwise known as "Michael Massey's Law," the "Move Over Law," or Slow Down to Get Around (SDTGA) — on May 1, making New Jersey the 15th state to enact such legislation aimed at improving industry safety, as reported by Point Pleasant Patch.

The bill requires motorists to drive below the speed limit while approaching a sanitation vehicle and to move into another lane, if possible, away from the vehicle. It also requires sanitation vehicles to display flashing lights while stopped. Violators can face a fine of up to $500.

The bill is dubbed "Michael Massey's Law" in honor of the late 39-year-old Ocean Township public works employee who was fatally struck by a car while loading a sanitation vehicle. "Michael Massey's tragic death was preventable. He was a loving husband and a father of two young children who lost his life because of a driver who chose to speed past a sanitation vehicle," said Sen. Jennifer Beck in a statement, according to Patch.

Dive Insight:

This law closely follows many other states that have recently enacted SDTGA legislation. Alabama, Florida, Georgia, Indiana, Illinois, Iowa, Kentucky, Michigan, New York, North Carolina, Oklahoma, Virginia, Wisconsin and West Virginia all have adopted similar laws, and legislation has also been introduced in Connecticut.

The rules may be frustrating for drivers, but they hold significant meaning for industry workers and their families who fear the dangers associated with collections. Refuse and recycling collection remains the fifth most dangerous occupation nationwide and news about traffic-related industry fatalities has become much too common. While safety practices are preached to all refuse truck drivers, citizen attention and awareness is still lacking, making the adoption of this legislation one of the most important movements for industry employees.

Outside of simply putting the laws into place, other actions have been taken to make citizens aware of their duties while driving near collection vehicles. The Solid Waste Association of North America (SWANA) has made efforts to distribute free SDTGA decals to its members, and some municipalities have even painted large, attention-grabbing reminders on the side of their trucks. Citizens should not wait for a tragic event to happen to begin caring about sanitation worker safety, therefore every bit of effort to promote safety from both government officials and industry leaders can help.

OTA Creates Survey Concerning CB, Two-Way Radios

The Ontario Trucking Association (OTA) is seeking input for a survey it has published concerning specific exemptions for holding and use of two-way radios (including hand-held CB radios) that are set to expire on January 1, 2018.

These time-limited exemptions currently allow the use a two-way radio for the following:

- Certain public function employees (eg., bus drivers);
- Commercial drivers;
- Amateur radio operators (eg., an Industry Canada-licensed operator which could include a commercial driver).

For two-way radios, the exemption allows a driver to push and hold the button on a hand held two-way radio device when driving. The driver can push a button to talk and release it to listen, repeating as often as necessary to have a conversation. If the hands-held device is a microphone, it must be secured in, or mounted to the vehicle and within easy reach of the driver. Two-way radio, hands-free devices that are clipped to the driver's belt or attached to his/her clothing are also exempt.

The expiration of this exemption would prohibit the hand-held use of two-way radios for all road users (aside from law enforcement outlined in the current regulation). For this reason, the Ministry of Transportation (MTO) is considering three options to address the expiry of the exemption:

1. Extend the exemption for hand-held use of two-way radios for an additional seven years (and review again in seven years).
2. Make the exemption permanent (as some other Canadian jurisdictions have done).
3. Allow the exemption to expire, effective January 1, 2018 (making hand-held use of devices illegal and requiring all currently exempted drivers to use hands-free alternatives only).

To assist OTA in responding to the MTO on this issue, the OTA wants your input on the matter. You can complete the OTA's survey by clicking here.

Canada 200M Tonnes Away From Meeting International Emissions Promise

Canada has just 13 years to cut almost 200 million tonnes of yearly carbon emissions if it hopes to meet its 2015 international climate treaty obligations. Such a reduction would be the equivalent of taking 44 million cars off the road — twice the number of passenger vehicles that were registered in Canada two years ago.

The latest national emissions inventory report, published in April, shows Canada's emissions at 722 million tonnes in 2015, down just 0.7 per cent from the previous year.

As part of the 2015 Paris Agreement, Canada agreed to a target of 523 million tonnes by 2030 — 30 per cent less than what the country generated in 2005.

The target becomes even more daunting if there is any growth in emissions from industries, such as expanded production in the oilsands or new manufacturing. Indeed, the pipeline projects Canada has already approved in principle could add more than 40 million tonnes from additional oil extraction alone. Nonetheless, Environment Minister Catherine McKenna is insisting the government's climate change plan will allow Canada to meet its target.

The Pan-Canadian Framework on Clean Growth and Climate Change,, signed last fall by Ottawa and 11 of the 13 provinces and territories, aims to take 86 million tonnes of carbon emissions out annually by 2030. That includes the impact of the carbon pricing regime to be phased in at increments of $10 per tonne starting next year, reaching $50 per tonne by 2022.

The government anticipates other measures committed to prior to the framework, such as Alberta's phase-out of coal-powered electricity plants and Saskatchewan's renewable energy target, will cut emissions by 89 megatonnes a year.

The rest of the road to 523 will come from investments in public transit and green infrastructure, clean technology and stored carbon in forests, wetlands and soils.

Michael Cleland, chair of the board at the Canadian Energy Research Institute, said he pegs the odds of those cuts materializing by 2030 at "zero." He said the climate change framework will get Canada closer, but the trajectory of emissions just won't change fast enough to cut emissions by more than 27 per cent in 13 years.

Cutting coal-fired electrical plants, something Ottawa wants done by 2030, will eliminate 61 million tonnes, but three of the four provinces that still generate electricity by burning coal haven't committed to that yet.

Cleland said there will be incremental growth in electric vehicles and more efficient buildings, but both are only happening "bit by bit." He said the government deserves recognition for its carbon price plan and "there is no question in my mind it will have an impact on people's decisions."

But he said it's hard to know whether that plan will actually play out given the differences among the provinces, and the current lack of buy-in from at least two: Saskatchewan and Manitoba.

Dale Marshall, national program manager at Environmental Defence, is more optimistic.

Consumers are going to buy into electric vehicles far faster than either the government or the industry are expecting, said Marshall, who also expects demand for fossil fuels to drop and opposition to pipeline projects to grow.

"I think there is a reasonable chance we're going to hit our 2030 target," he said. "There is a gap right now, but I think technology will continue to evolve quite quickly."

This one's got legs: the Ontario Climate Change Solutions Deployment Corporation

On February 17, 2017, the Ontario Ministry of the Environment and Climate Change ("MOECC") took another step toward implementing the goals in the Ontario Climate Change Action Plan ("CCAP"). By filing the Ontario Climate Change Solutions Deployment Corporation regulation (the "regulation"), the MOECC created a new non-share capital corporation to stimulate the development of clean technology and assist with reducing barriers that may inhibit the implementation of the CCAP and its goals.

What you need to know

The corporation, called the Ontario Climate Change Solutions Deployment Corporation ("OCCSDC"), was designed to further the provincial deployment of clean technology for reducing greenhouse gas emissions. It is tasked with meeting this broad purpose by:

- providing information;
- engaging in marketing;
- providing services and arranging for others to be provided with services;
- providing incentives and engaging in financing activities;
- stimulating private sector financing; and
- researching market barriers inhibiting the deployment of clean technology.
- Interestingly, research and development are expressly excluded from the scope of the duties of the OCCSDC.

The regulation places a focus on developing programs that will maximize absolute greenhouse gas reductions and stimulate the use of clean technology by low-income households. Additional programs will be directed at:

- switching from using fossil fuels to other sources of energy;
- energy storage (of various forms);
- renewable energy;
- retrofitting existing structures to reduce or eliminate greenhouse gas emissions;
- stimulating economies of scale in technology;
- stimulating private sector financing; and
- stimulating the construction of buildings that significantly exceed provincial energy efficiency requirements (think net-zero and net-positive construction).

The corporation will be funded in part by the proceeds of Ontario's cap and trade program, which the Ontario Government estimates to be approximately $2 billion per year.

Why is this important?

Since the closure of Ontario's coal power plants in 2014 (an event which went generally unnoticed by both the press and the general public), the province's mighty electric power system has become one of the least carbon reliant in the world. To reduce its GHG footprint further, Ontario must now look to sectors outside of the electricity sector. Under Ontario's CCAP, we see new clean-tech business opportunities arising in transportation, built infrastructure (buildings and homes), land use planning, commercial industry, First Nations Communities, agriculture and the MUSH sector. The OCCSDC is intended to work in tandem with the CCAP to drive change and stimulate economic opportunities.

Ontario has the tremendous luxury of not being the first jurisdiction in the world to set up a green bank. The UK, Japan, Australia and Malaysia have all cut a path through the forest. Over the past nine years in the U.S., several green banks have been set up at the state level. Of these, New York, California, Hawaii and Connecticut provide excellent examples. Additionally, the concept of the green bank is essentially similar to that of an export development bank – something Ontario businesses are accustomed to working with at the federal level. The key element of a green bank is that it uses public funds, tailored credit requirements and moderately innovative financing techniques to lever private sector finance and commercial innovation capacity in order to achieve specific policy goals. With Ontario's OCCSDC the focus will be – as it should be – on commercially viable technologies rather than research or early-stage innovation.

The best green banks bring global knowledge and understanding to local markets, use their strategic position to develop market capacity where the private sector would otherwise be unable to, use credit-enhancement, co-investment, securitization and other financing tools to diffuse risk, create scale and mitigate private sector project risk. Ontario's OCCSDC appears poised to do most of this and, in addition, it also promises to provide direct small-scale incentives and financing to consumers and to businesses to drive practical and attitudinal change.

Where are the opportunities?

The key is to remember that the OCCSDC is intended to work in tandem with the CCAP to drive change and stimulate economic opportunities. These mechanisms provide a "stick and carrot" approach. The other thing to remember is, as several have already said, this is a big deal. We see it impacting most of the economy, including the following key sectors and industries:

- Building and construction industries
- Food manufacturing and processing
- Property development and management industries
- District heating and cooling companies
- Urban planners
- High-emitting sectors, including cement, lime, forestry and steel industries
- First Nations communities and governments
- Regional governments
- Automobile manufacturers
- Municipalities
- Local distribution companies
- Renewable fuels producers
- Urban transportation systems
- Real estate businesses
- Hospitals

- Universities and colleges
- School boards
- Natural gas sector participants

In Transportation, for instance, we see the combination of the CCAP and the OCCSDC:

- creating support to enhance the availability and use of lower-carbon fuel by funding fuel distributors for high-blend sustainable biofuels and infrastructure upgrades;
- supporting the re-use of agricultural and food waste as a source of methane fuel;
- generally increasing the distribution and use of electric vehicles and increasing charging-station infrastructure in the province;
- supporting expanded cycling infrastructure in urban areas and along roadways;
- incentivizing low-carbon commercial vehicle solutions; and
- accelerating the construction of regional light rail systems.

In Built Infrastructure, we expect to see:

- a complete retrofit Ontario's aging social housing infrastructure;
- encouragement for homeowners to purchase or build Net Zero Carbon Emission homes through providing incentives and rebates;
- encouragement of the installation of low-carbon technology in existing homes;
- funds to upgrade and retrofit colleges, universities, hospitals and schools (a vast undertaking when considering the scale and age of this infrastructure);
- "energy audits" before new and existing single-family homes may be listed for sale; and
- low-carbon content requirements for natural gas, and encouraging more efficient use of natural gas in industrial, transportation and building sectors.

In the Industrial Sector, we expect to see:

- assistance for industries and businesses to transition to and adopt low-carbon technologies and manufacturing solutions, to reduce net methane output from industrial processes and to select low GHG production inputs;
- focus on high-emitting sectors, such as the cement, steel, and lime production industries;
- focus on the province's gigantic food and beverage-processing sector to assist in expanding use of emissions-reducing processing technologies;
- transitional assistance to retrofit agricultural facilities, including new greenhouses and grain dryers and improved storage, cold storage and transportation facilities.

For First Nations Communities, expect

- collaboration with communities to facilitate transitioning to low-carbon, non-fossil fuel energy;
- renewed efforts to connect remote communities to provincial electricity grid;
- support to reduce reliance on diesel fuel and enable community microgrid use of renewable energy sources;

- low-carbon job training opportunities and training partnerships; and
- enhanced strategic investment opportunities for Band Councils in projects outside of the community.

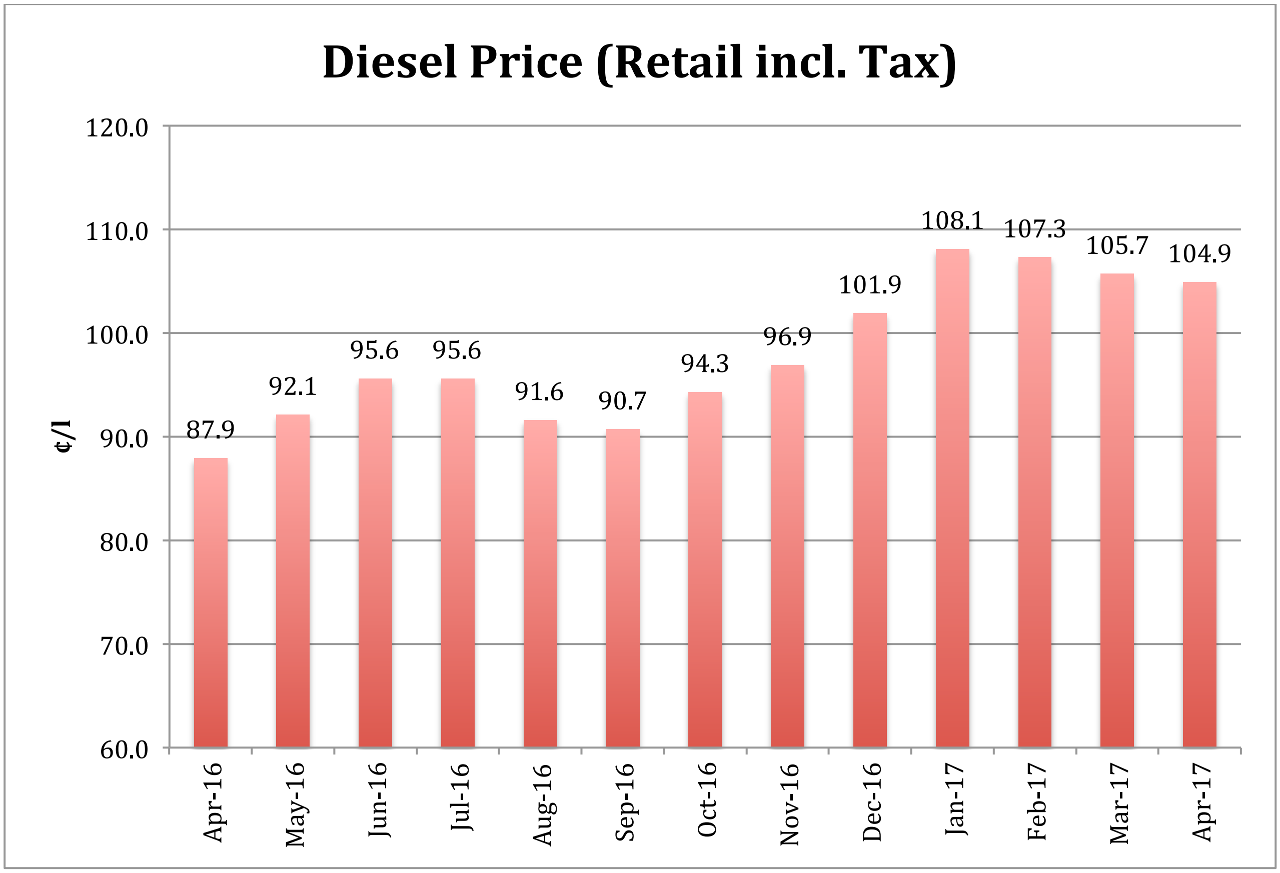
For Municipalities, expect:

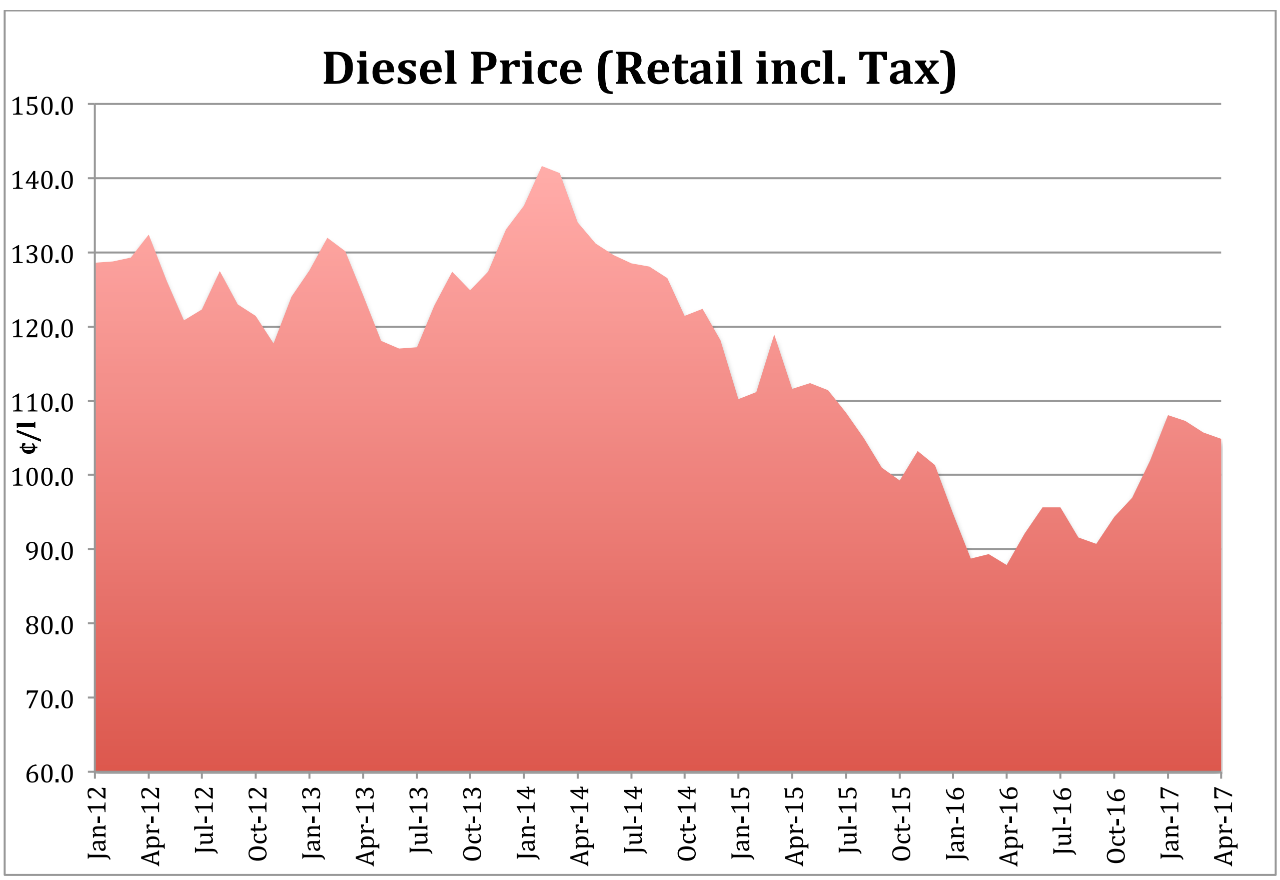
- support for community energy mapping - integrating gas, electricity, heating and cooling, water, transportation, waste consumption and building data into a single platform;
- support to implement Transportation Demand Management Plans;
- requirements for electric vehicle charging stations in surface lots;
- requirements for "Green Development Standards" –reducing motorized vehicle use and supporting sustainable community development; and
- support for climate change mitigation strategies in municipal official plans.

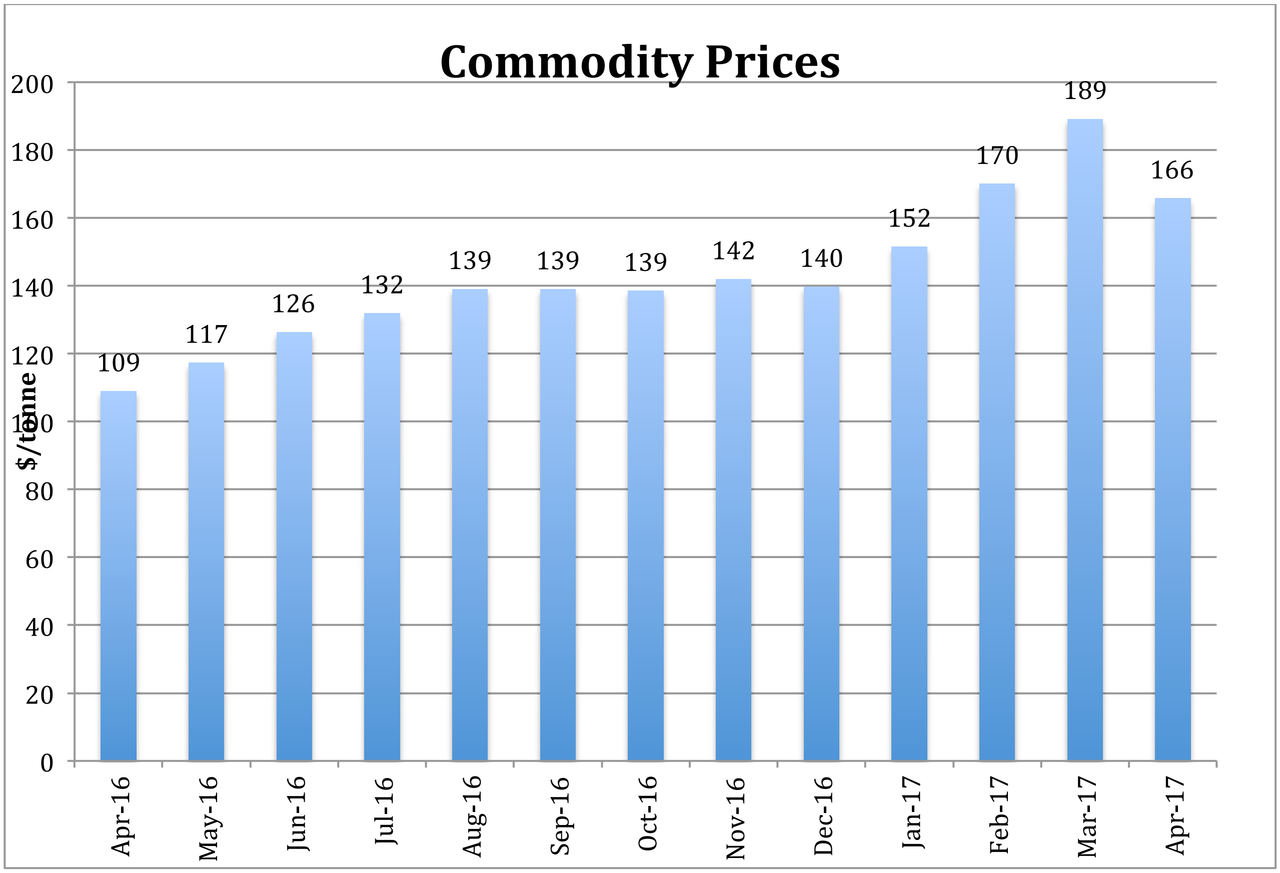
What comes next?

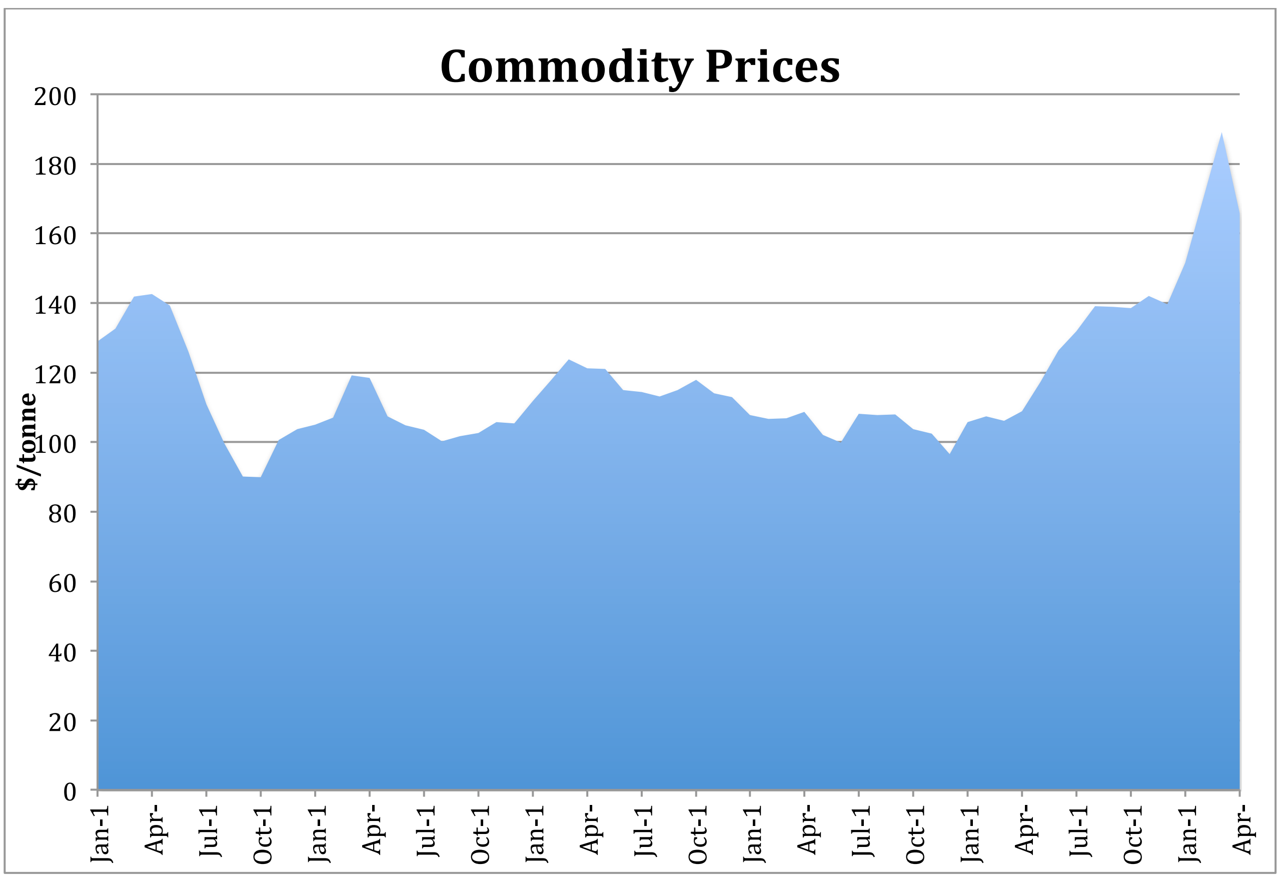
The Board of the OCCSDC is currently being assembled. After this happens, it will take time for programs to be developed and launched. As well, key details on the operation of the new corporation – including reporting obligations, how it will interact with existing and emerging federal and provincial bodies such as the Ontario Energy Board and the emerging federal infrastructure bank – will need to be finalized and revealed. That being said, there is significant pressure on the province to get things underway.

Given the grave, global impact of carbon and other GHG emissions and the very diffuse nature of the GHG problem for Ontario, the OCCSDC and its parent policy, the CCAP, promise to drive gradual and fundamental change and to create substantial economic opportunities across many sectors. As with green banks elsewhere, early renditions are likely to have flaws and there will undoubtedly be missteps. That being said, considering the sums involved and given the experience seen in other jurisdictions, the launch of the OCCSDC will create economic growth and innovation opportunity and, ultimately, should help Ontario meet its GHG objective. This one's, as the saying goes, got legs.


Diesel Price (Retail incl. Tax)
¢/l
120.0
110.0
100.0
90.0
80.0
70.0
60.0
87.9
92.1
95.6
95.6
91.6
90.7
94.3
96.9
101.9
108.1
107.3
105.7
104.9
Apr-16
May-16
Jun-16
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
Jan-17
Feb-17
Mar-17
Apr-17


Diesel Price (Retail incl. Tax)
¢/l
150.0
140.0
130.0
120.0
110.0
100.0
90.0
80.0
70.0
60.0
Jan-12
Apr-12
Jul-12
Oct-12
Jan-13
Apr-13
Jul-13
Oct-13
Jan-14
Apr-14
Jul-14
Oct-14
Jan-15
Apr-15
Jul-15
Oct-15
Jan-16
Apr-16
Jul-16
Oct-16
Jan-17
Apr-17


Commodity Prices
$/tonne
200
180
160
140
120
100
80
60
40
20
0
109
117
126
132
139
139
139
142
140
152
170
189
166
Apr-16
May-16
Jun-16
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
Jan-17
Feb-17
Mar-17
Apr-17


Commodity Prices
$/tonne
200
180
160
140
120
100
80
60
40
20
0
Jan-1
Apr-
Jul-1
Oct-1
Jan-1
Apr-
Jul-1
Oct-1
Jan-1
Apr-
Jul-1
Oct-1
Jan-1
Apr-
Jul-1
Oct-1
Jan-1
Apr-
Jul-1
Oct-1
Jan-1
Apr-