

## Cabot Microelectronics Corporation EHS Performance Report- 4Q FY'18

CMC is committed to conducting its business operations in a manner that preserves the environment, which includes minimizing waste, conserving energy and preventing pollution. Our commitment goes beyond regulatory compliance and ISO certifications. The following charts show our overall progress over the last three years.

Additionally, we are partnering with our customers to help them achieve their environmental goals. As we look to the future, we plan to further reduce the environmental impact of doing business by strongly encouraging our suppliers to share our environmental vision, and we plan to measure the progress of these preferred suppliers. Through our own initiatives, as well as through joint programs with our customers and suppliers, we strive to continue to be a trusted business partner and model corporate citizen with respect to the environment.

In FY'15, new 5-year goals were established with FY'14 results serving as baseline performance.

<b>CMC 5 Year Landfill Waste Reduction Goal</b>				
Fiscal Year	Target Goal (Lbs.)	Actual Volume Disposed (Lbs.)	Percent Reduction to Baseline	% Reduction Goal-Cumulative
'14	123,510	Baseline	Baseline	Baseline
'15	122,275	115,920	6.1%	1%
'16	121,040	111,420	9.8%	2%
'17	119,805	90,830	26.5%	3%
'18	118,570	95,750	22.5%	4%
'19	117,335			5%

**Goal:** Reduce overall landfill waste in pounds by 5% over a 5 year period ending in FY'19.  
**Note:** Landfill waste reduced by 88% in FY'08 thru FY'14.

<b>CMC 5 Year Electrical Usage Reduction Goal</b>				
Fiscal Year	Target Goal (KwH)	Actual Amount Used (KwH)	Percent Reduction to Baseline	% Reduction Goal-Cumulative
'14	25,024,390	Baseline	Baseline	Baseline
'15	24,774,146	23,909,730	4.5%	1%
'16	24,523,902	24,448,317	2.3%	2%
'17	24,273,658	24,340,632	2.7%	3%
'18	24,023,414	21,960,829	12.2%	4%
'19	23,773,142			5%

**Goal:** Reduce overall electricity usage in KwH by 5% over a 5 year period ending in FY'19.  
**Note:** Electricity use reduced by 15.3% in FY'08 thru FY'14.

<b>CMC 5 Year Water Usage Reduction Goal</b>				
Fiscal Year	Target Goal (Gal.)	Actual Amount Used (Gal.)	Percent Reduction to Baseline	% Reduction Goal-Cumulative
'14	40,201,542	Baseline	Baseline	Baseline
'15	39,799,527	38,243,961	4.8%	1%
'16	39,397,511	39,004,625	3.0%	2%
'17	38,995,496	38,865,238	3.3%	3%
'18	38,593,480	34,843,055	13.3%	4%
'19	38,191,465			5%

**Goal:** Reduce overall water usage in Gallons by 5% over a 5 year period ending in FY'19.  
**Note:** Water use reduced by 13.5% in FY'09 thru FY'14.

### CMC 5 Year Incineration Waste Reduction Goal

Fiscal Year	Target Goal (Lbs.)	Actual Volume Disposed (Lbs.)	Percent Reduction to Baseline	% Reduction Goal-Cumulative
'14	1,012,611	Baseline	Baseline	Baseline
'15	992,358	806,713	20.3%	2%
'16	972,106	684,544	32.4%	4%
'17	951,854	661,479	34.7%	6%
'18	931,602	624,708	38.3%	8%
'19	911,350			10%

Goal: Reduce overall incineration waste in pounds by 10% over a 5 year period ending in FY'19.

Note: Incineration waste reduced from 2.5M lbs. to 1M lbs from FY'13 to FY'14.

### CMC 5 Year Solid Waste Reduction Goal

Fiscal Year	Target Goal (Lbs.)	Actual Volume Disposed (Lbs.)	Percent Reduction to Baseline	% Reduction Goal-Cumulative
'14	4,350,406	Baseline	Baseline	Baseline
'15	4,263,398	4,887,520	+12.3%	2%
'16	4,176,390	4,345,800	0.1%	4%
'17	4,089,382	3,781,595	13.1%	6%
'18	4,002,374	3,768,222	13.4%	8%
'19	3,915,365			10%

Goal: Reduce overall solid waste in pounds by 10% over a 5 year period ending in FY'19.

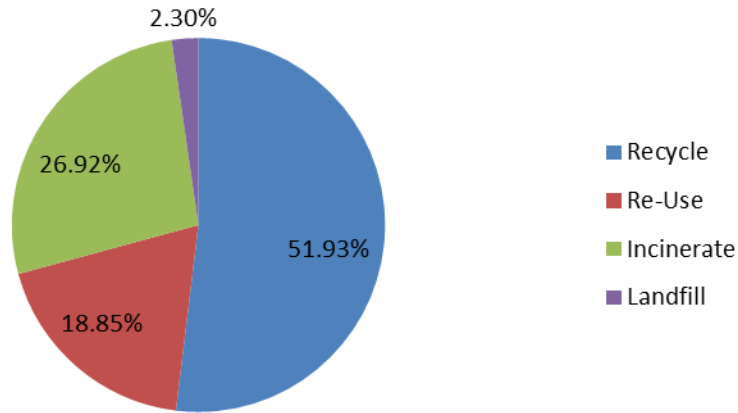
### CMC 5 Year Greenhouse Gas (GHG) Reduction Goal

Fiscal Year	Target Goal (MT CO <sub>2</sub> )	Actual Amount (MT CO <sub>2</sub> )	Percent Reduction to Baseline	% Reduction Goal-Cumulative
'14	15,046	Baseline	Baseline	Baseline
'15	14,895	14,376	4.6%	1%
'16	14,745	14,699	2.3%	2%
'17	14,594	14,635	2.7%	3%
'18	14,444	13,204	12.2%	4%
'19	14,293			5%

Goal: Reduce GHG emissions in MT CO<sub>2</sub> by 5% over a 5 year period ending in FY'19.

MT= Metric Tons

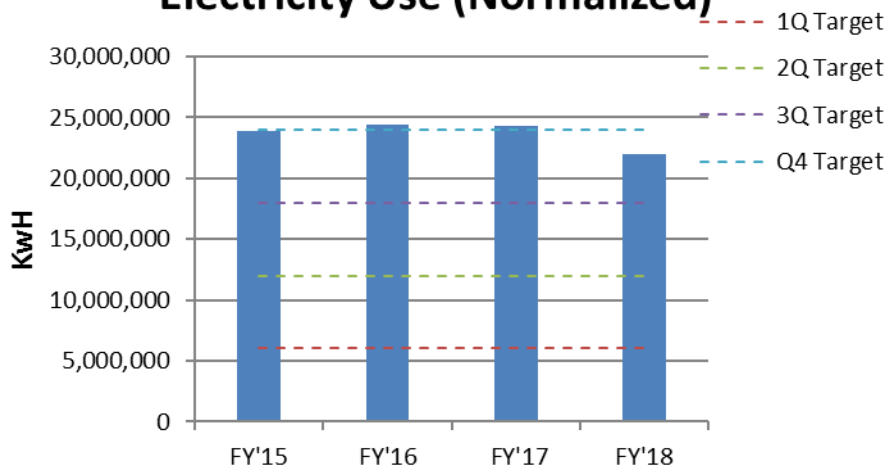
## CMC Solid Waste Management- FY'18



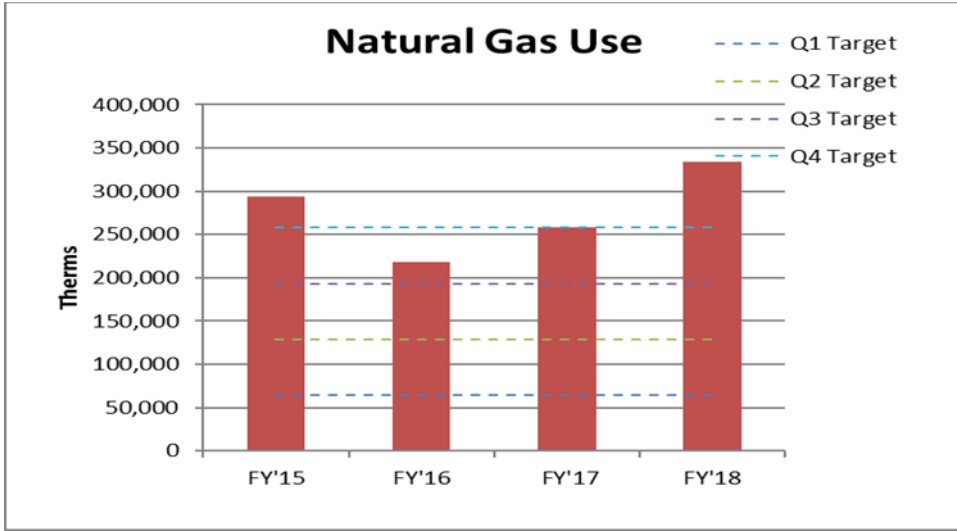
4.16M lbs. total solid waste generated. Does not include off-spec product or raw material waste.

Additionally, the following tables show our current fiscal year quarterly performance.

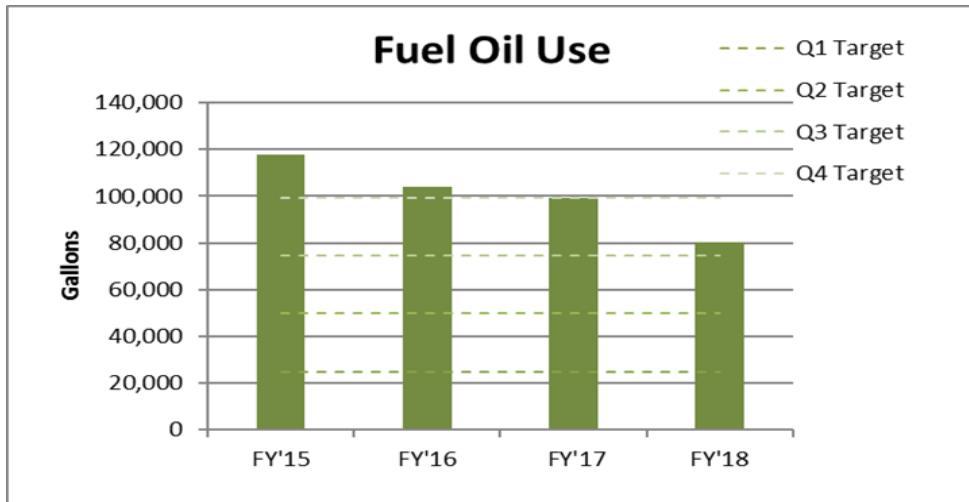
## Electricity Use (Normalized)



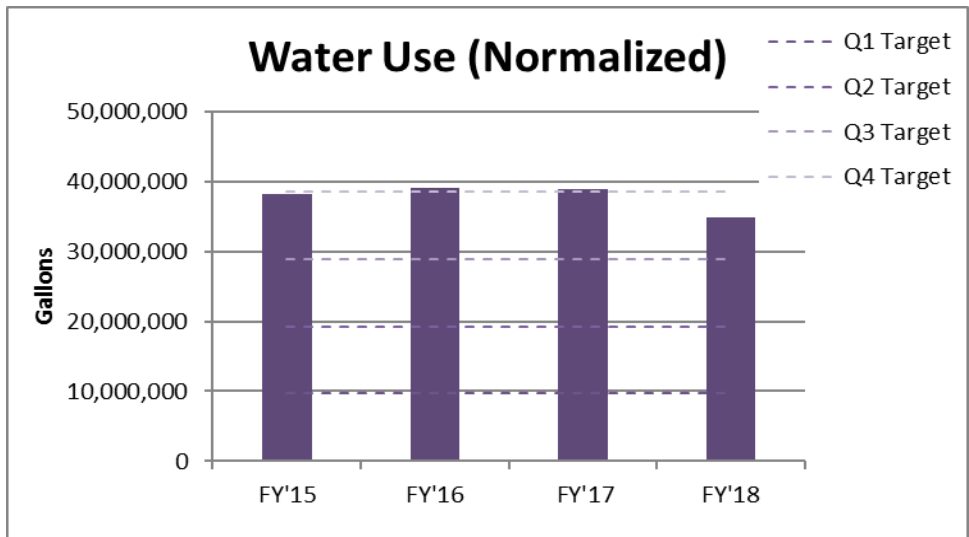
Note: Data normalized for production volumes.



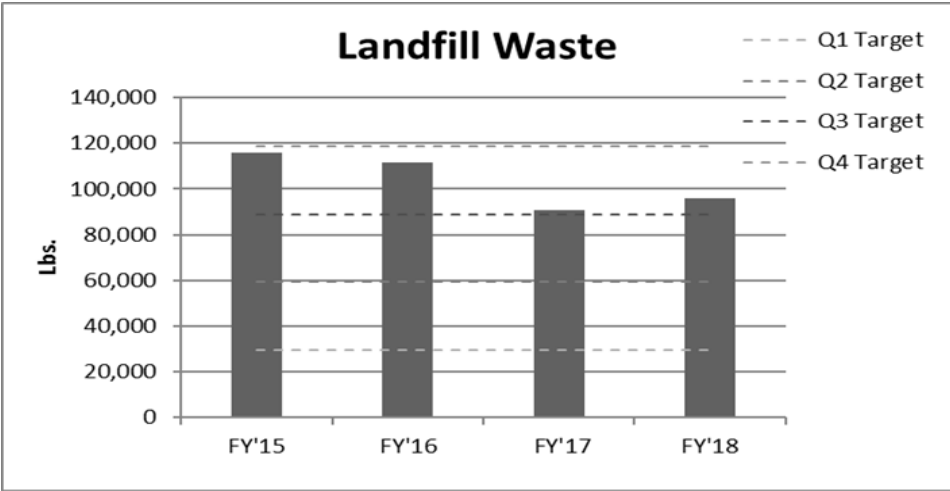
FY'18 Goal: Maintain consumption to FY'17 use.



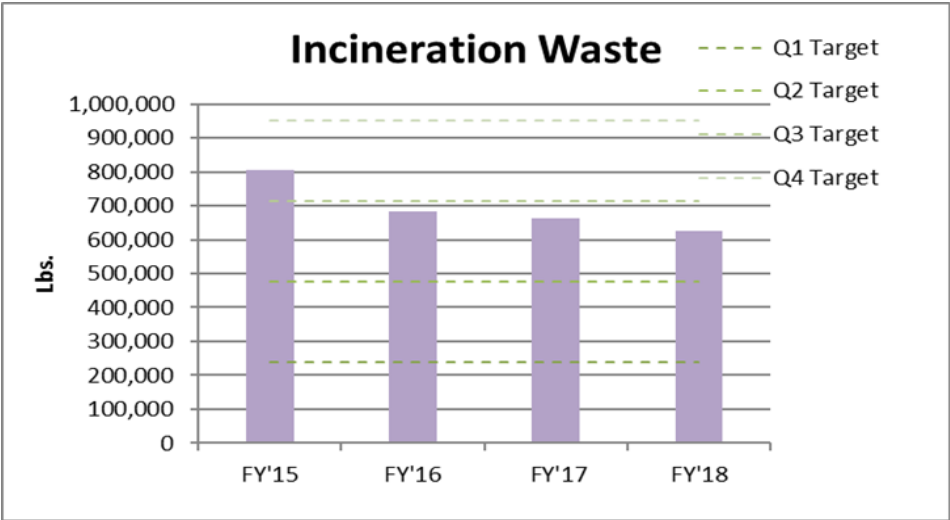
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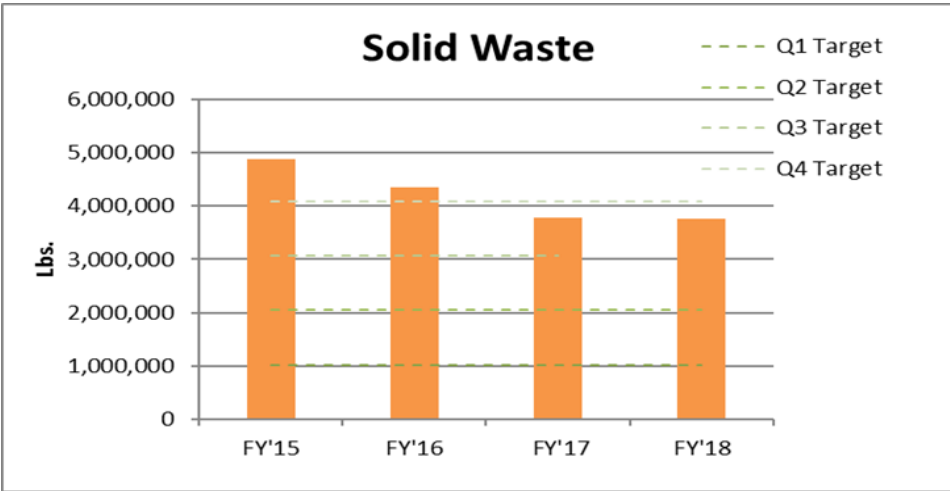
Note: Data normalized for production volumes.



Note: Data is not normalized for production volumes.



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## Recycling/Re-Use/Energy Recovery/Landfill Avoidance Activity at CMC

<u>Material</u>	<u>FY'14</u>	<u>FY'15</u>	<u>FY'16</u>	<u>FY'17</u>	<u>FY'18</u>
Office Paper	52,636 lbs.	67,062 lbs.	39,914 lbs.	42,025 lbs.	34,720 lbs.
Cardboard	293,277 lbs.	213,774 lbs.	160,855 lbs.	188,588 lbs.	160,219 lbs.
Aluminum	578 lbs.	337 lbs.	710 lbs.	248 lbs.	102 lbs.
Batteries	726 lbs.	581 lbs.	711 lbs.	551 lbs.	40 lbs.
Pallets (Re-Use)	16,289	10,049	8,294	9,128	8,168
Reconditioned Drums	5,745	5,835	5,589	6,043	4,944
Reconditioned Totes	4,354	3,220	3,513	3,796	5,404
Plastic Wrapping	278,878 lbs.	239,984 lbs.	227,952 lbs.	216,538 lbs.	205,132 lbs.
Paper Bags	1,064,348 lbs.	1,008,001 lbs.	1,094,688 lbs.	909,435 lbs.	829,320 lbs.
Ink Cartridges	395	381	382	338	320
Aluminum Disks	607 lbs.	2,821 lbs.	2,200 lbs.	2,312 lbs.	2,386 lbs.
Plastic (Various)	513,455 lbs.	624,372 lbs.	587,160 lbs.	661,682 lbs.	609,199 lbs.
Wood Packaging	50,294 lbs.	238,261 lbs.	244,976 lbs.	219,916 lbs.	184,003 lbs.
Polyurethane Pad	214,260 lbs.	232,507 lbs.	312,449 lbs.	219,309 lbs.	199,761 lbs.
Filters	322,255 lbs.	298,513 lbs.	230,090 lbs.	308,149 lbs.	388,507 lbs.
Scrap Metal	N/A	67,941 lbs.	29,598 lbs.	26,252 lbs.	25,305 lbs.
Electronic Equipment	N/A	3,260 lbs.	1,348 lbs.	241 lbs.	11,048 lbs.

### ISO 14001:2015

Since 2006, Cabot Microelectronics continues to maintain an Environmental Management System that meets the ISO 14001:2015 requirements. Our Environmental Management System includes programs for identifying and managing the environmental input of our operations; the organizational structure and responsibilities for environmental management and control; the methods to measure, analyze and improve the environmental aspects of our operations; and for the management review process to ensure suitability, adequacy and effectiveness of the environmental management program.

These programs are enabled through consistent global business systems, thorough training and certification critical to environmental responsibilities, training in environmental awareness and well documented operating procedures. The goals of the Environmental Management System are prevention of injuries and pollution; regulatory compliance and improvement of performance.

ISO 14001:2015 re-certification has been achieved for our United States, Japan, Singapore, Korea and Taiwan manufacturing sites and our Wales office. In FY'18, our Korea manufacturing site is expected to achieve re-certification to the new standard.

In FY'18, CMC will continue to look for ways to minimize waste, reduce water and energy use and increase recycling and alternative disposal methods to landfill.

#### **Responsible Business Alliance (RBA) (Formally known as Electronic Industry Citizenship Coalition or EICC)**

The RBA was established in 2004 and with a purpose to promote an industry code of conduct for global electronics supply chains to improve working and environmental conditions. RBA collaborates with member companies, their suppliers and stakeholders to ensure continuous improvement. As a critical supplier to the electronic industry, CMC actively participates in the RBA Code of Conduct surveys which are made available to key customers and reflect CMC's performance in the five main areas of Environment, Health & Safety, Labor, Management Systems and Ethics.

For 2018, CMC has completed Self-Assessment Questionnaires (SAQ's) for the Corporate location as well as eight additional manufacturing sites. The results for all sites indicated CMC to be a 'Low Risk'. Scores can be accessed using the Enablon platform.

#### **Carbon Disclosure Project (CDP)/Water Disclosure Project (WDP)**

The Carbon Disclosure Project is an independent not-for-profit organization holding the largest database of primary corporate climate change information in the world. It was launched in 2000 to accelerate solutions to climate change by putting relevant information at the heart of business, policy and investment decisions.

2,500 organizations in 60 countries around the world now measure and disclose their greenhouse gas emissions and climate change strategies through CDP in order to set reduction targets and make performance improvements. This data is made available for use by a wide audience including institutional investors, corporations, policymakers and their advisors, public sector organizations, government bodies, academics and the public.

In 2017, CMC completed the CDP submission. Overall scoring indicated a "C-" rating. The CDP program average for semiconductor supply chain was a "D". The chemical industry average was a "D". CMC scored higher than both the CDP program and industry average in the categories of Governance & Strategy; Risk & Opportunity Management; Emissions Management; and Verification. CMC will continue to look for ways to improve performance and will participate again in the CDP program in 2018.

In 2017, CMC completed our first Water Disclosure Project or WDP submission. Overall scoring indicated a "C" rating. The WDP program average for semiconductor supply chain was a "D". The chemical industry average was a "D". CMC scored higher than both the CDP program and industry average in the categories of Context; Risk Assessment; Governance and Strategy; Risk & Response- Direct Operations; and Risk & Response- Supply Chain. CMC will continue to look for ways to improve performance and will participate again in the CDP program in 2018.

#### **Restriction of Hazardous Substance (RoHS)**

RoHS originated in the European Union in 2006 and restricts the use of six hazardous materials- lead; mercury; cadmium; hexavalent chromium; polybrominated biphenyls (PBB's); polybrominated diphenyl Ethers (PBDE's)- found in electrical and electronic components.

As a supplier to the Electronic Industry, CMC is potentially subject to this regulation. All CMC products are free from these six restricted substances.