

October 2014

# Carbon Energy



**Coca-Cola**  
**Hellenic Bottling Company**

# Carbon Energy

## THE ISSUE

The recent IPCC reports clearly demonstrate that global warming is indisputable and that CO<sub>2</sub> levels have increased 40% since pre-industrial times. At the current trajectory, the average temperature will increase 4°C by the end of the century, resulting in severe social and economic impacts. To minimize these impacts, science advises that the maximum temperature increase must remain below 2°C and, cumulative emissions must be limited to 1 trillion tonnes of carbon. The implications are clear: society, governments and industry must transition from carbon based to renewable forms of energy and reshape practices to drastically reduce GHG emissions.

Climate change represents significant potential risks to Coca-Cola HBC, including increased energy costs, carbon taxation, sustainable supplies of water, raw materials such as sugar and fruits and business disruption due to severe weather conditions.

We are taking decisive action to address the risks and opportunities presented by climate change. We aim to take a leadership role, particularly in developing and emerging markets.<sup>1</sup>

## OUR APPROACH AND OUR PROGRESS TO DATE

We take a holistic approach to our environmental responsibilities that is integrated across the value chain. (See our Carbon Roadmap below.)

### Reducing our emissions

Our operational carbon emissions (from production and transport) amounted to 741,684 tonnes in 2013 (3% below 2012 levels). The global carbon footprint of our products, including indirect emissions in the supply chain and for cooling amounted to 4.682 million tonnes of CO<sub>2</sub> (5% below 2012 levels).

Since 2004, we have reduced relative emissions from fleet and bottling plants by 29%.

We attribute much of our progress to our quad-generation CHP (combined heat & power) construction programme. CHP systems generate electricity and efficiently capture heat from generators to provide thermal energy for use in our factories. We have constructed 10 on-site CHP units to provide electrical and thermal energy to our bottling operations, which reduce the carbon emissions for these sites by 40%. Five of our CHP units also generate food-grade CO<sub>2</sub>, further reducing emissions from these sites.



Ingredients



Packaging



Manufacturing



Distribution



Refrigeration



Recycling

**According to our carbon reduction strategy, by 2020, we aim to reduce the total carbon footprint per litre of produced beverage by 25%, compared to 2010.**

### Carbon Roadmap

Agricultural Guiding Principles implemented and 100% Sustainable Sourcing for sweeteners and juice

Advance Light Weighting Programmes

25% rPET and optimal plantPET

Reduce the emissions from our manufacturing operations and deliver EUR 0.30 MJ/l

Reduce logistics footprint to deliver 2020 carbon goal

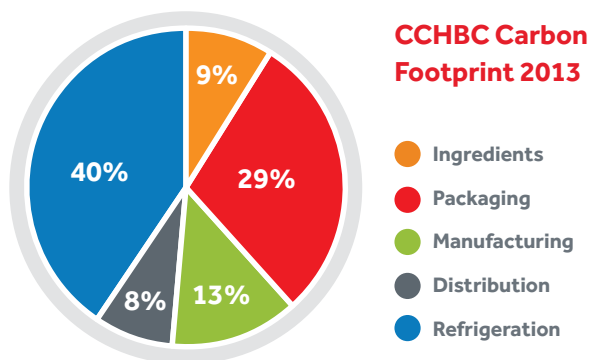
Implement our CDE Roadmap to reduce our largest footprint contributor

Recycle the equivalent 75% of the packaging that we use

<sup>1</sup> This background material does not include goals and progress data of our water strategy and action plan. In the next round of the Issue Briefs series, a separate document will cover the topics of water, packaging, and recycling.

## Reducing value chain impacts

Achieving our 25% CO<sub>2</sub> reduction for the “drink in your hand” requires focused efforts to reduce emissions across our entire value chain.



### Packaging

Packaging is one of the largest contributors to our greenhouse gas (GHG) emissions, and our package weight reduction, recycling and recycled material use initiatives are key contributors to delivering our 2020 goal. To reduce the climate impact of our packaging, we minimise material use and increase recycled content. We also invest significantly in collection, recovery and recycling. In 2013, our packaging reduction initiatives avoided 29,500 tonnes of carbon emissions. We have now begun to assess the sustainability performance of packaging suppliers, including carbon foot printing and energy management.

We are minimising the environmental impact of our packaging at every stage of the life-cycle. Our PET packages contain 20% less material than they did in 2004, resulting in 125,000 tonnes of CO<sub>2</sub> emissions reduction each year.

PET lightweighting initiatives allowed us to save 1,963 tonnes of material in 2013, increasing the use of recycled PET in CCHBC operations by 23%. Plantbottle™, the first fully recyclable PET bottle with up to 30% renewable plant-based content is another area of interest. In CCHBC markets we sell mineral water in 3 countries using this innovative packaging material, with plans to expand this year and in 2015.

During 2013, we developed the lightest alucan in the world in partnership with Ball Packaging Europe.

Collection, recovery and recycling of our packages remain key priorities. To date, we have helped to set

up 19 recovery organizations, enabling more than 133 million people across 18,500 municipalities to have access to collection and recycling infrastructure. To meet our recovery goals we are working to increase recovery and recycling rates in all of our 28 markets. Our investments in recovery and recycling contribute to the “circular economy” by creating value for communities as well as the environment

### Cold Drink Equipment

Since cold drink equipment represents 40% of our total emissions, optimising our coolers is a key element of our climate strategy. To reduce the impact of our 1.5 million coolers in retail outlets, we have led the development of cold drink equipment that is free of hydro-fluorocarbons (HFCs).

Newly purchased coolers are up to 63% more energy-efficient thanks to improved insulation, LED lighting and energy management devices. In 2013, HFC-free models accounted for almost two-thirds (64%) of coolers purchased, while 85% were equipped with an energy management device. We are on track to meet our target that all new equipment will be HFC-free by 2015.

### Operational energy efficiency

An internal network of energy-savings experts helps bottling plants to identify ways to reduce or recover energy. Projects include LED lighting, condensate recovery, modernisation of steam and heating systems, ceramic reflectors for bottle blowing machines, centralised control of compressors, CO<sub>2</sub> evaporators and dry heat exchangers among others. Several employee communications initiatives help to refocus employees on energy saving at the workplace and in their households. In addition to climate-proofing our business, these initiatives also yield significant cost-savings.

### Renewable energy sources

As fossil fuel reserves become constrained, our energy mix must include more renewables. Renewable energy accounted for 11% of electricity and 5.5% of energy use in 2013. Photovoltaic panels are in place in five plants and generated more than 4.4 million kWh of electricity in 2013.

### Internal policies, external initiatives

We have adopted internal standards which underpin our commitment to sound environmental management practices. By the end of 2013, ISO 14001-certified plants accounted for 99% of our produced volume.



Coca-Cola HBC has also signed external initiatives, including:

- CEO Water Mandate – UN Global Compact
- Caring for Climate – UN Global Compact
- Resolution on deforestation – Consumer Goods Forum
- Resolution on HFC-free refrigeration – Consumer Goods Forum

We have been awarded an A rating by the CDP (Carbon Disclosure Project) – and are listed on the CDP Global Climate Performance Leadership Index in 2014. CDP is an NGO which provides the only global system for companies to measure, disclose, manage and share information on environmental impact and encourage actions to reduce it.

Coca-Cola HBC provided comprehensive information about the measurement and management of its carbon footprint, climate strategy and risk management processes and outcomes. These clearly defined the risks and opportunities around climate change, and resulted in a number of initiatives including:

- Working with Russian sugar beet producers to eliminate the need to import sugar for the company's operations by 2015
- Working with suppliers in introducing HFC-free coolers, meaning all new equipment will be HFC-free by 2015
- An investment of €3 million in 2013 in energy saving programmes throughout the company's plants

### **Governance**

Responsibility for environmental performance lies with the Group Director, Operational Sustainability and Primary Packaging. In this capacity, he is supported by others, including the Group Environment Manager, Water Resources and Technologies Manager, Energy Projects Manager, Group Packaging Manager and Resource Recovery Director. He also serves as the Chairman of the Sustainability Steering Committee, which gives recommendations to the executive board on the sustainability strategy and the management of the most material sustainability issues. To reflect the importance of this body, 3 out of 6 of the Steering Committee members are on the executive board of Coca-Cola HBC AG.

### **Monitoring & Follow-Up**

We set short, medium and long-term targets for improvement. Annual targets are set at plant, country and Group level, and progress is reviewed monthly, quarterly and annually.

Water, energy, packaging and waste are monitored quarterly by the Group Sustainability Council. Results are reported to the Board Social Responsibility Committee. Targets are included in performance objectives of managers and employees, according to function. Performance affects variable compensation and career development.

Independent audits are conducted each year as part of ISO 14001. Compliance with environmental laws and regulations is monitored and reported. We publish our performance against these goals.

### **Working with our suppliers**

We source ingredients, packaging and equipment from thousands of suppliers, ranging from small independent firms to large international companies. Although we do not own or control these entities, we are working with them to build a sustainable supply chain as this is where the bulk of our environmental and socio-economic impacts lie. We invest in joint value creation programmes, ranging from developing climate-friendly cold drink equipment to increasing local beet sugar production. We are also partnering with agricultural suppliers to achieve a sustainable supply base through advancing, jointly with The Coca-Cola Company, the Sustainable Agriculture Guiding Principles.

## **FUTURE OUTLOOK**

By 2020, we aim to reduce relative emissions from operations by 40% vs. 2004. Since absolute reductions matter most, we have set a 20% reduction target for absolute emissions. To achieve this, we must continue to decouple business growth from an associated rise in emissions.

Our biggest challenge is to tackle emissions throughout our value chain. By 2020, we aim to reduce the total carbon footprint per litre of produced beverage, including ingredients, packaging, manufacturing and cooling, by 25% compared to 2010. (By the end of 2013, we had achieved a reduction of 4.7%.)

## **SOME FLAGSHIP PROGRAMMES**

### **Switching energy sources**

One of our latest innovation and investment is the second heat pump at our mineral water bottling plant in Zalaszentgrót, Hungary. Excess heat energy from

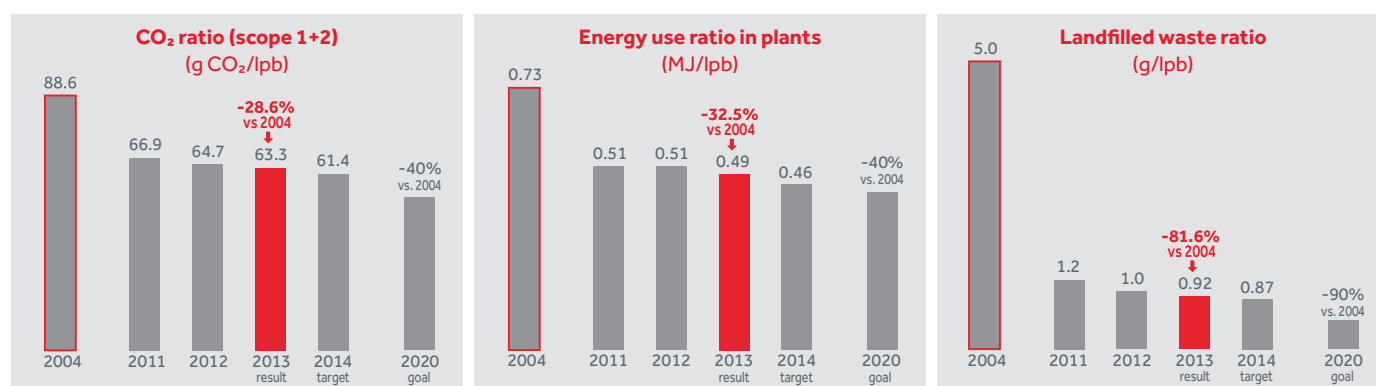
the aquifer is used to heat our bottling plant, as well as thermal baths in the community. This project avoids 500 tonnes of CO<sub>2</sub> emissions and 300,000 cubic meters of gas each year. By installing a second similar pump this year, the plant will operate independent of electricity from the grid, in a close to CO<sub>2</sub> neutral way.

### Reducing carbon footprint from transportation

Our drivers are trained in our Safe and Eco-Driving programme and performance is monitored

monthly. By fitting all new Company vehicles with MobilEye technology we expect to further improve performance. Although primarily a safety device, the technology improved fuel efficiency by 5% in trials.

We use a special programme and software (LEO – Logistics Execution Optimiser) for routes optimization for all our trucks and we launched a programme for optimisation of reverse logistics/back-haul logistics to optimize fleet use.



### 2020 environmental goals

	2004 baseline	% change	2013 result	2014 target <sup>2</sup>	2020 goal vs 2004
<b>Production volume</b> (billion litres)	7.5	56	11.7	*	*
<b>Water ratio in plants</b> (l/lpb <sup>1</sup> )	2.86	-23	2.20	2.07	<b>-40%</b>
<b>Total water use in plants</b> (billion litres)	27.8	-7	25.8	*	<b>+0%</b>
<b>Water footprint</b> (billion litres)	51.7	-62	19.6	19.0	<b>-75%</b>
<b>Energy ratio in plants</b> (MJ/lpb)	0.73	-32	0.49	0.46	<b>-40%</b>
<b>Total energy use in plants</b> (billion MJ)	6.5	-11	5.8	*	<b>+0%</b>
<b>CO<sub>2</sub> ratio</b> (g CO <sub>2</sub> /lpb) (Scope 1 and 2)	88.6	-29	63.3	61.4	<b>-40%</b>
<b>Total CO<sub>2</sub> emissions<sup>3</sup></b> (thousand tonnes) (Scope 1 and 2)	792	-6	742	719	<b>-20%</b>
<b>Landfilled waste ratio</b> (g/lpb)	5.0	-82	0.9	0.87	<b>-90%</b>
<b>Total waste landfilled</b> (thousand tonnes)	41.7	-74	10.8	10.1	<b>-80%</b>

1. Per litre of produced beverage

2. No 2014 targets are indicated for absolute environmental data as these depend on production volume, for which we do not provide targets.

3. Carbon emissions for 2012 have been recalculated due to the change in unit of measure in 2012 CHP data, as well as inaccuracies identified recently in 2012 fleet data.

### Combined Heat & Power Generator (CHP unit)



### Heat pump at mineral water plant, Hungary





# Coca-Cola Hellenic Bottling Company

28 countries 136 brands 2.1 billion unit cases €839 m EBITDA 36,722 employees

## OUR MISSION

We seek to refresh our consumers, partner with our customers, reward our stakeholders and enrich the lives of the people in our local communities.

## OUR PURPOSE

"Bring togetherness, spread happiness and inspire a better future" motivates our employees to make a meaningful contribution to business and society.

## OUR VISION

To become the undisputed leader in every market in which we compete.

### ESTABLISHED MARKETS

- Austria
- Cyprus
- Greece
- Italy
- Northern Ireland
- Republic of Ireland
- Switzerland

### DEVELOPING MARKETS

- Croatia
- Czech Republic
- Estonia
- Hungary
- Latvia
- Lithuania
- Poland
- Slovakia
- Slovenia

### EMERGING MARKETS

- Armenia
- Belarus
- Bosnia & Herzegovina
- Bulgaria
- FYROM
- Moldova
- Montenegro
- Nigeria
- Romania
- Russia
- Serbia
- Ukraine

### Our broad geographic footprint

We operate across 28 countries and three continents. Our territories extend from as far west as the Dingle Peninsula in County Kerry, Ireland, to Petropavlovsk, the easternmost point of Russia, and from the Arctic Circle to the tropics of Nigeria. This breadth provides attractive growth opportunities and reduces our dependence on any particular market.



Find all of our locations:  
[www.coca-colahellenic.com/interactivemap](http://www.coca-colahellenic.com/interactivemap)

3  
continents

28  
countries

68  
bottling plants

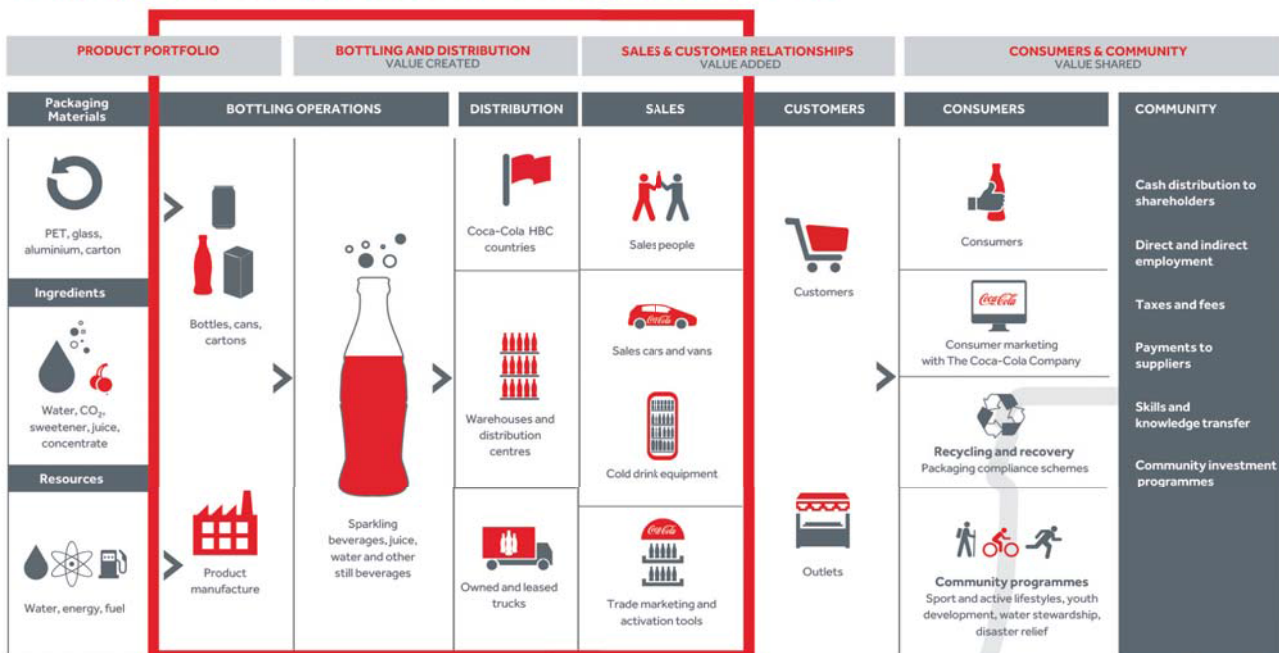
312  
filling lines

324  
distribution centres and warehouses

36,722  
employees

585 million  
consumers

## GENERATING, CAPTURING & SUSTAINING VALUE



## FEEDBACK

We appreciate your feedback on this report or on any other aspect of our sustainability performance.

PLEASE CONTACT US AT

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Coca-Cola HBC has a premium listing on the London Stock Exchange (LSE: CCH) and its shares are listed on the Athens Exchange (ATHEX: EEE). Coca-Cola HBC is included in the Dow Jones Sustainability Index ("Industry Leader Amongst Beverage Companies in 2014") and the FTSE4Good Index. For more information, please visit <http://www.coca-colahellenic.com/>.



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