Independent Assurance Statement to Altria

ERM Certification and Verification Services (ERM CVS) was engaged by Altria Group, Inc. (Altria) to provide assurance in relation to the selected 2020 consolidated data as set out in Section 1 of Altria's CY2020 Environmental Metrics assertion (attached as an Appendix to this statement).

Engagement summary				
	Whether the consolidated corporate data for calendar year 2020 set out in Section 1 of the attached 'Altria CY2020 Environmental Metrics' assertion for the following indicators are, in all material respects, appropriately presented in accordance with the reporting criteria:			
	 Energy Use (Billions of BTUs) 			
	 Total GHG emissions (Metric tonnes CO₂e): 			
Scope:	 Scope 1 Direct GHG emissions from on-site fossil fuel combustion and refrigerant gases; and emissions from sales vehicles and company-controlled aircraft (Metric tonnes CO₂e) 			
	- Scope 2 Indirect GHG emissions from purchased electricity (Metric tonnes CO ₂ e)			
	- Scope 3 Other Indirect GHG emissions from global air travel and rented vehicles (Metric tonnes CO ₂ e)			
	 Water Consumption (Millions of gallons) 			
	 Waste disposed at landfill (Millions of pounds) 			
	 Waste recycled, composted, converted to fuel or reused (Millions of pounds) 			
	 Hazardous waste generated (Short tons) 			
	'Appropriately presented' means we have assessed the selected data for reliability which includes: completeness (whether all relevant locations and sources were captured); comparability (across locations and over time); and accuracy of calculations (including the use of appropriate formula, conversion factors, estimates and assumptions).			
Reporting criteria used:	Altria's internal environmental reporting processes, including GHG data based on the World Resources Institute and the World Business Council for Sustainable Development (WRI/WBCSD) GHG Protocol (Revised 2004).			
Assurance standard used:	ERM CVS's assurance methodology, based on the International Standard on Assurance Engagements ISAE 3000 (Revised).			
Assurance level:	Limited assurance.			
Respective responsibilities:	Altria is responsible for preparing the Altria 2020 CR Progress Report and for the collection and presentation of the data within it, including disclosure of the reporting criteria and boundary.			
	ERM CVS's responsibility is to provide conclusions on the agreed scope based on the assurance activities performed and exercising our professional judgement.			

Our conclusions

Based on our activities, nothing has come to our attention to indicate that the consolidated corporate data for calendar year 2020 for the indicators listed under 'Scope' above, and set out in Section 1 of Altria CY2020 Environmental Metrics, are not appropriately presented in accordance with the reporting criteria.

Our assurance activities

We planned and performed our work to obtain all the information and explanations that we believe were necessary to provide a basis for our assurance conclusions.

A team of environmental and assurance specialists performed the following activities:

- Interviews with relevant staff to understand Altria's internal reporting processes, including the use of its EMIS database for each indicator.
- Interviews with relevant staff to understand and evaluate the data management systems and processes (including data collection and internal review processes) used for collecting and reporting the selected data.
- A review of the calculations undertaken, including conversion factors and emission factors used.
- A virtual visit to the Richmond HQ, including a review of the EMIS database and vendor data management.
- Virtual visits to the Columbia Crest, King of Prussia, and CRT sites to interview relevant staff and review source documentation for the selected indicators.
- A review of the consolidated year end data submitted by all sites for the selected indicators, and follow up of queries.

The limitations of our engagement

The reliability of the assured data is subject to inherent uncertainties, given the available methods for determining, calculating or estimating the underlying information. It is important to understand our assurance conclusions in this context.

Due to COVID travel restrictions, we planned our assurance engagement to include virtual site visits. While we believe this approach does not affect our limited assurance conclusion(s) above, we draw attention to the possibility that if we had undertaken in person visits we may have identified errors and omissions in the assured information that we did not discover through the alternative assurance program.

Beth C. B. myle

Beth Wyke, Partner, Global Head of Corporate Assurance Services 11 March 2021

ERM Certification and Verification Services, Inc.

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Declaration of Independence: ERM CVS is a member of the ERM Group and an accredited Certification Body. The work that ERM CVS conducts for clients is solely related to independent assurance activities and auditor training. Our processes are designed and implemented to ensure that the work we undertake with clients is free from bias and conflict of interest. ERM CVS and the staff that have undertaken work on this assurance exercise provide no consultancy related services to Altria in any respect.

ALTRIA CY2020 ENVIRONMENTAL METRICS

Section 1: 2020 Metrics with Independent Assurance

Indicator	Amount	Unit of measure	
Energy use	3,873	Billions of BTUs	
Total GHG Emissions	286,553	Metric tonnes CO ₂ e	
Scope 1 GHG emissions*	139,868	Metric tonnes CO ₂ e	
Scope 2 GHG emissions**	144,140 (location-based) 141,100 (market-based)	Metric tonnes CO ₂ e	
Scope 3 GHG emissions***	2,546	Metric tonnes CO ₂ e	
Water consumption	2,695	Millions of gallons	
Waste disposed at landfill	79.54	Millions of pounds	
Waste recycled, composted, converted to fuel or reused	302.1	Millions of pounds	
Hazardous waste generated	474.2	Short tons	

* Scope 1 Direct GHG emissions from on-site fossil fuel combustion and refrigerant gases; process emissions; emissions from sales vehicles and company-controlled aircraft (tonnes CO₂e)

** Scope 2 Indirect GHG emissions from purchased electricity (tonnes CO2e)

*** Scope 3 Other Indirect GHG emissions from global air travel and rented vehicles (tonnes CO2e)

Greenhouse gas (GHG) emissions prepared in accordance with the Greenhouse Gas Protocol.

Scope 2 GHG market-based emissions were calculated according to the market-based approach set out in the Greenhouse Gas Protocol Scope 2 Guidance, January 2015.

The market-based Scope 2 GHG emissions represent a zero emission rate from renewable energy certificates (RECs) and supplierspecific emission rates for renewable energy program purchases.

The market-based Scope 2 GHG emissions are not included in Total GHG Emissions.

Water consumption consists of all sources of water, including cooling water, with the exception of minor, non-metered sources. It is equivalent to GRI Total Water Withdrawal.

Independent Assurance was provided by ERM Certification and Verification Services Inc. Please refer to their Independent Assurance Statement for full details of the scope, assurance activities and conclusions.

Section 2: Additional Information to Support GRI Indicators

Energy Usage

Fuel Consumption from Non-Renewable Sources

Natural Gas	18,655,601	hcf
Fuel Oil	3,330	gallons
Propane	2,421,815	gallons
Diesel	123,428	gallons
Gasoline	1,339,266	gallons
Jet Fuel	290,661	gallons
Jet Fuel	290,661	gallons

<u>Fuel Consumption from Renewable Sources</u> Not applicable.

Electricity, Heating, Cooling, and Steam Purchased for Consumption Purchased Electricity 440,923 mWh Heating, Cooling, Steam Not applicable.

Electricity, Heating, Cooling, and Steam Sold Not applicable.

Total Energy Consumption

Purchased Electricity	1,504,491	MMBtu	<u>Total</u>	
Natural Gas	1,921,527	MMBtu	3,873	Billion Btu
Fuel Oil	460	MMBtu		
Propane	222,807	MMBtu		
Diesel	17,033	MMBtu		
Gasoline	167,408	MMBtu		
Jet Fuel	39,239	MMBtu		

Energy data collected using utility invoices, meter readings, tank fill receipts, fuel logs, and run time logs. Estimation methodology applied to de minimis sources.

Source of Conversion Factors

Fuel energy conversion factors from U.S. Code of Federal Regulations 40 CFR 98 Subpart C; Appendix Table C-1 - USEPA Mandatory Greenhouse Gas Reporting; Default CO₂ Emission Factors and High Heat Values for Various Types of Fuel.

Greenhouse Gas Emissions

Greenhouse gas (GHG) emissions were prepared in accordance with the Greenhouse Gas Protocol. The consolidation approach for GHG emissions is operational control.

Scope 1 Direct GHG emissions [tonnes CO2e]

Emissions from on-site fossil fuel combustion, refrigerant gases, fuel use from sales fleet and leased vehicles, and companycontrolled aircraft (tonnes CO₂e).

Gases included in the calculation are CO₂, CH₄, N₂O, and refrigerant gases (CFCs, HCFCs, and HFCs).

Source of Emission Factors

Combustion fuels based on USEPA Climate Leaders document (last modified March 2020). Global Warming Potential (GWP) factors for the GHG pollutants (including refrigerant gases) are based on IPCC Fifth Assessment Report (AR5 – 100 years). GHG factors for mobile fuels and combustion fuels (USEPA Climate Leaders; last modified March 2020).

Scope 2 Indirect GHG emissions (tonnes CO₂e) [Location-based]

Emissions from purchased electricity.

Gases included in the calculation are CO_2 , CH_4 , and N_2O .

Source of Emission Factors

Location-based purchased electricity based on USEPA Emissions & Generation Resource Integrated Database (eGRID), 2019. eGRID2019 (Released February 23, 2021).

GWP factors for the GHG pollutants based on IPCC Fifth Assessment Report (AR5 - 100 years).

Scope 2 Indirect GHG Emissions (tonnes CO₂e) [Market-based]

The market-based Scope 2 GHG emissions represent a zero emission rate from renewable energy certificates (RECs) and supplierspecific emission rates for renewable energy program purchases.

Market-based emissions calculated according to the market-based approach in the Greenhouse Gas Protocol Scope 2 Guidance, January 2015.

Scope 3 Other Indirect GHG emissions (tonnes CO2e)

Emissions from global air travel and rented vehicles.

Gases included in the calculation are CO₂, CH₄, and N₂O.

Source of Emission Factors

GHG factors for mobile fuels and combustion fuels (USEPA Climate Leaders; last modified March 2020). GHG factors for air travel from UK Government Conversion Factors (DEFRA 2020 Government Greenhouse Gas Conversion Factors for Company Reporting).

GWP factors for the GHG pollutants based on IPCC Fifth Assessment Report (AR5).

Waste by Type and Disposal Method

Non-Hazardous Waste	(Million Ibs.)	Hazardous Waste	(Tons)
Re-use	0.845	Re-use	0.0
Recycling	275.6	Recycling	0.085
Composting	23.55	Composting	0.0
Recovery, incl. Energy	1.64	Recovery, incl. Energy	225.26
Incineration	0.005	Incineration	192.71
Landfill	79.04	Landfill	55.97
Deep Well Injection	n/a	Deep Well Injection	n/a
On-site Storage	n/a	On-site Storage	n/a
Other	n/a	Other	0.183
*n/a=not applicable.	380.7 Total		474.2 Total

Waste Disposal Methods

Disposed of directly by organization or otherwise directly confirmed. Information provided by waste disposal contractor.

Total Water Withdrawal

Volume by Source (million gallons)

733.7 Surface water, including water from wetlands, rivers, lakes, and oceans

- 1,090.2 Ground water
- 0 Rainwater
- 0 Waste water from another organization
- 871.0 Municipal water supplies or other water utilities
- 2,695 Total

Standards, methodologies, and assumptions used

The method of collecting water usage data is supplier invoicing and on-site meter reading.