

Verification Statement Arizona Public Service Co. (APS) – CY2017 GHG Inventory and Water Use and Discharge Data

Background

Cameron-Cole, LLC (“Cameron-Cole”) was retained by Arizona Public Service Company (APS) to perform an independent verification of its Greenhouse Gas (GHG) Emissions Inventory and water use/discharge data for Calendar Year 2017 (CY2017), which was developed according to the World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (the GHG protocol) and the USEPA Mandatory GHG Reporting Rule, and as such will be the standards for Cameron-Cole to determine conformance for the GHG Inventory. APS’s water withdrawal and discharge data was verified in accordance with the guidelines set forth in the International Standard on Assurance Engagements (ISAE) 3000.

Responsibility of APS & Independence of Verification Provider

APS has sole responsibility for the content of its GHG Inventory. Cameron-Cole accepts no responsibility for any changes that may have occurred to the GHG emissions results since they were submitted to us for review. Based on internationally accepted norms for impartiality, we believe our review represents an independent assessment of APS’s CY2017 GHG Emissions and Water Inventory. Cameron-Cole and all verification team members have no previous business relationships with APS or their management team. Cameron-Cole implements a strict internal policy for maintaining impartiality for all verification assignments. Finally, the opinion expressed in this verification statement should not be relied upon as the basis for any financial or investment decisions.

Level of Assurance

The level of assurance is used to determine the depth of detail that a Verification Body designs into the Verification Plan to determine if there are material errors, omissions or misstatements in a company’s GHG assertions. Although Absolute Assurance may provide the highest level of confidence that an emissions assertion is materially correct, it is often not practical for complex verification assignments. The two remaining levels of assurance that are generally recognized – reasonable and limited – are routinely provided by Verification Bodies. Reasonable Assurance generates the highest level of confidence that an emissions report is materially correct, while Limited Assurance provides less confidence, and involves less detailed examination of GHG data and supporting documentation. Limited Assurance statements assert that there is no evidence that an emissions report is not materially correct. Cameron-Cole’s verification of APS’s GHG Emissions Inventory and Water data for CY2017 was constructed to provide a Reasonable Level of Assurance.

Objectives

The primary objectives of this verification assignment were as follows:

- Determine whether the GHG emissions and water data assertions meet/exceed the 95% threshold for accuracy; and,

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- Evaluate the conformance of APS’s accounting and calculation methodologies, processes and systems to The GHG Protocol.

Verification Criteria

Cameron-Cole conducted verification activities in alignment with the principles of ISO-14064-3:2006(E) Specifications with Guidance for the Validation and Verification of Greenhouse Gas Assertions. The APS GHG Inventory was prepared using, and verified against, The GHG Protocol.

Verification Scope & Assertions

The scope of this verification assignment covers APS’s CY2017 GHG Emissions Inventory with the following boundaries:

- **Geographical:** United States
- **Chemical:** carbon dioxide (CO₂), sulfur hexafluoride (SF₆), nitrous oxide (N₂O) and methane (CH₄)
- **Operational Boundary:** The following sources/emissions were identified in APS’s organizational boundary:
 - Scope 1 – Direct Emissions from Stationary Combustion Sources: from electricity generating facilities - Yucca, Ocotillo, Saguaro, Sundance, Douglas and West Phoenix (CCI, CC2, and CT 1 and CT2), Four Corners, Cholla, and Redhawk.
 - Scope 1 – Direct Fugitive Emissions: SF₆ emissions related to the operation of the electricity distribution network
 - Scope 1 – Direct Emissions from Mobile Combustion Sources: vehicle fleet
 - Scope 2 – Indirect Emissions from Electricity Purchases: from APS fixed facilities, including offices and service centers
 - Scope 3 – Business Travel

APS’s CY2017 GHG assertions are as follows:

	Market-based (MT CO₂e)	Location-based (MT CO₂e)
Scope 1	10,822,462	10,822,462
Scope 2	13,536	16,400
Scope 1+2 total	10,835,998	10,838,862
Scope 3	2,696	2,696
Grand total, all sources	10,838,694	10,841,558
Biogenic CO ₂	3,947	3,947

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It is therefore verified that APS's declared assertions above are materially correct, limited to the boundaries listed above.


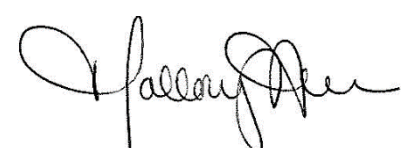
Note that due to their biogenic nature, CO₂ emissions associated with combustion of B20 in the APS vehicle fleet is reported separately, in keeping with established GHG accounting principles.

In Addition, APS the following water use and discharge data has been verified for CY2017:

West Phoenix Water Use Summary			
	Acre Feet	Gallons	Megalitre
2017 Withdrawal	3,263.30	1,063,349,568.30	4,025.22
2017 Discharge	280.51	91,404,464.01	346.00
Ocotillo Water Use Summary			
	Acre Feet	Gallons	Megalitre
2017 Withdrawal	601.06	195,856,002.06	741.3966
2017 Discharge	93.29	30,398,639.79	115.0715

Verification Opinion

Based on the method employed and the results of the verification activities undertaken, **Cameron-Cole has found no evidence of material errors, omissions or misstatements in APS's CY2017 GHG Inventory within the boundaries described above.** Cameron-Cole also found that APS's GHG accounting and calculation methodologies, processes and systems for their GHG inventory conform to The GHG Protocol.

	
Dru Krupinsky, Lead Verifier <i>Senior Strategist, Sustainability Services</i> May 10, 2018	Mallory Andrews, Independent Reviewer <i>Technical Reviewer</i> May, 11, 2018