

Room Air Cleaner Version 2.0 Limited Topic Proposal (Connected Criteria) Comment Response Document

Topic	Stakeholder Comments	EPA Response
Communications Hardware Architecture	<p>A stakeholder requested clarification on the term 'communications hardware'. This stakeholder asserted that connections to routers, phones, and other devices would be made by the consumer after sale and would not be included in product packaging.</p>	<p>This term refers to the hardware of the room air cleaner that would allow for the capability of the product to provide communication with entities outside the product, for instance a Wi-Fi chip or a plug-in module with such a chip. This does not include routers, phones, or other devices expected to already be present in the home.</p>
Energy Reporting	<p>A stakeholder stated that frequent energy consumption reporting would require increased server speed or size. This stakeholder noted that requiring energy reporting would require new parts to be added to each unit to measure power and also an API would need to be developed to communicate the power consumption information.</p>	<p>EPA wants to clarify that energy consumption information can be estimated based on product state and need not be measured. In addition, there is no requirement, that it be displayed on the room air cleaner or its app. EPA recommends that data be reported in watt-hours for intervals of 15 minutes or less, however, representative data may also be reported in alternate units and intervals as specified in the product manufacturer's interface specification. EPA would appreciate any information from stakeholders on the incremental cost for including this capability.</p>
General	<p>One stakeholder supported a consensus protocol for interoperability.</p> <p>A different stakeholder supported a reporting field for network connected devices.</p> <p>Another stakeholder requested more information on why EPA believes that room air cleaners are an important product for connectivity. They noted that EPA did not include criteria for remote management, operational status and messages, and demand response in this limited topic proposal. They stated that this exclusion may result in negative implications for consumer control and may reduce the ability of certified connected room air cleaners to be a part of the integrated home platform.</p>	<p>The specific design and implementation of the connected capability of a room air cleaner is at the manufacturer's discretion provided it is interoperable with other devices via an open communications protocol.</p> <p>EPA plans to recognize products that meet this criteria as 'connected capable' on the ENERGY STAR Certified Product List. Participation is voluntary.</p> <p>Smart products are becoming increasingly common, but are not consistently optimized for energy savings. EPA is hoping to capitalize on new ways to build energy intelligence into residential products. In particular, EPA is interested in collaborating with service providers, product providers, utilities, and other stakeholders through various ENERGY STAR specifications to effectively reduce household energy use. While EPA anticipates that early entrants in providing connected functionality will focus on providing capabilities through a product specific app, in the long term, users have more energy saving opportunities for products that participate in a service provider managed smart home package. The proposed connected criteria include capabilities that are important for connecting to such smart home packages.</p> <p>EPA is not including remote management, operational status/messages, and demand response criteria at this time because EPA believes that connected capability is still evolving for room air cleaners but wants to ensure that this capability is developed in a way that can be easily integrated into smart home energy systems.</p>

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<p>Open Access</p>	<p>A stakeholder requested that manufacturers have the option to open their platforms up to third party systems but that it is not a requirement.</p> <p>Another stakeholder noted that EPA should stipulate multiple connection pathways, including an open and nonproprietary protocol.</p>	<p>A product that enables economical and direct, on-premises, open-standards based interconnection is the preferred option for enabling consumer-authorized third-party access to the energy reporting functionalities, but alternative approaches are also acceptable.</p> <p>Communication with entities outside the connected room air cleaner must use, for all communication layers, standards that are defined as open-standards by an recognized standards development organization. EPA defines multiple communication hardware architectures that are acceptable under this criteria.</p>
<p>Optional Connected Criteria</p>	<p>A stakeholder requested clarification regarding the connected criteria being optional.</p>	<p>The proposed connected criteria are optional. A product does not need to be network connected, or able to meet the connected criteria, to become ENERGY STAR certified. A product would need to be able to meet this criteria in order to be listed as connected capable on the ENERGY STAR Room Air Cleaners Certified Product List.</p>