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Comment Received From: Chris Malt
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Transcritical CO2 Condensing Units

Please see attached for refrigeration CO2 condensing units being required to be adiabatic. It does not make sense having a state where water is scarce and requiring this. We can get more efficiency by doing alternative measures.

Additional submitted attachment is included below.

Stakeholder Comment Letter Template: Title 24 CO2 Remote Condensing Units

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California Energy Commission
Dockets Office
715 P Street
Sacramento, CA 95814

May 8, 2026

Re: Request to revise Title 24 requirements for CO2 remote condensing units

Dear Commissioners:

On behalf of Carrier Commercial Refrigeration(CCR), this letter respectfully requests that the California Energy Commission revise Title 24, Part 6, so that CO2 remote condensing units are not categorically required to include adiabatic gas coolers in order to comply in applicable climate zones. CCR is one of the largest manufacturers of CO_2 refrigeration systems in Europe and has made a strategic investment to expand into the North American market. As one of the original pioneers in transcritical CO_2 technology, CCR has played a major role in making CO_2 a viable, reliable, and sustainable refrigerant solution for commercial refrigeration applications worldwide. With decades of experience in advanced refrigeration system design, controls integration, and energy optimization, CCR brings proven European technology, engineering expertise, and long-term support to customers transitioning toward natural refrigerant solutions.

The current prescriptive requirement does not reflect the realities of today's CO2 equipment market. The adiabatic gas-cooler requirement was developed when central CO2 rack systems were the primary focus, but the market now includes factory-built CO2 remote condensing units and other smaller distributed systems for which that requirement can be unnecessarily burdensome or poorly suited.

From a practical standpoint, requiring adiabatic gas coolers can add cost, maintenance burden, water-use concerns, and design complications without necessarily being the best path to strong energy performance. A more effective approach would allow compliance through equivalent performance, giving manufacturers, engineers, and end users flexibility to achieve energy goals through other design strategies.

The European market is significantly ahead of the North American market in refrigeration technology and system efficiency strategies. Many European countries have already moved away from or restricted water usage in refrigeration systems due to sustainability and environmental concerns. In transcritical CO_2 systems, requiring water usage often does not make sense when greater efficiency can be achieved through advanced compressor modulation, fan capacity control, and optimized system controls.

Updating the code is also important because refrigerant regulations are rapidly transforming the market. CO2 remote condensing units are becoming an important low-GWP solution for both large and small

businesses, and California policy should preserve a clear path for these systems rather than unintentionally narrowing the market to a smaller set of compliance options.

While this issue may otherwise wait until the 2028 code cycle, earlier action is needed. The Commission is respectfully encouraged to work with stakeholders to identify an alternative pathway that could clarify compliance treatment or allow this change to move forward sooner, so that code requirements do not unnecessarily slow adoption of climate-beneficial CO2 technology.

Thank you for your consideration of this request.

Sincerely,

Chris Malt
North America Engineering Director
Carrier Commercial Refrigeration (CCR)