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*Comment Received From: Spectrum Mechanical  
Submitted On: 6/21/2021  
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## **Economizer, Computer Rooms**

*Additional submitted attachment is included below.*



June 21, 2021

Dear Commissioners:

Thank you for giving the public the opportunity to see the Commission's proposed language for the T24 2022 Energy Code, in particular the Prescriptive Requirements for Covered Processes.

I have been designing and installing data center cooling equipment produced by various manufactures for 40 years throughout the State of California. There is not one cookie cutter design that can be applied to every single data center. I have installed condenser water, chilled water, Dx refrigerant, and other types of cooling systems throughout the years. The optimal cooling system design is determined by a mix of owner requirements and physical site limitations. Refrigerant-cooled systems have become increasingly popular among data center owners due to their high reliability, low complexity, and low design fees. Increasing the economizer temperature threshold for refrigerant economizers to 65 °F, as one commenter recommended, would detrimentally effect data center owners by forcing them to either install excess units, oversized equipment, or additional chilled water systems for the sole purpose of meeting the temperature threshold. It would not add overall efficiency to the system, and would in fact significantly increase water usage at data centers.

Increasing the temperature thresholds beyond what is in the Draft Express Terms will make data center cooling systems significantly more costly. This will benefit the contractors and engineering consultants who would design oversized, complex chilled water systems to meet the heightened temperature requirements, but it will significantly burden the data center owners who rely on efficient, cost-effective cooling systems that fit their space requirements in order to keep mission critical electronic information flowing throughout innumerable hospitals, governments, and businesses in California. In short, I support the Draft Express Terms as written, and oppose any suggestion that the temperature threshold for refrigerant economizers be raised beyond 50°F at this time.

Sincerely,

**Raymond R Weatherly**

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