

## DOCKETED

<b>Docket Number:</b>	17-BSTD-02
<b>Project Title:</b>	2019 Title 24, Part 6, Building Energy Efficiency Standards Rulemaking
<b>TN #:</b>	222450
<b>Document Title:</b>	Tom James Comments on Proposed 2019 Standards Demand Response Language
<b>Description:</b>	Email comment docketed by staff.
<b>Filer:</b>	Adrian Ownby
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
<b>Submission Date:</b>	2/7/2018 1:15:28 PM
<b>Docketed Date:</b>	2/7/2018

**From:** Tom James [mailto:tdjames@san.rr.com]  
**Sent:** Tuesday, February 06, 2018 9:11 AM  
**To:** Strait, Peter@Energy  
**Subject:** RE: T24 2019 - latest draft DR language

Peter,

Your timely response is much appreciated. I called you yesterday to discuss directly, but hadn't realized you were likely in the public hearing. Couple of follow-up comments:

*"As a note, the proposed 2019 specifications do not prohibit or restrict the inclusion or use of other protocols, including proprietary protocols. The intent is to ensure that at least one open protocol is available for use, in order to prevent stranding of buildings if a proprietary operator ceases operation or deprecates the device's proprietary protocol."*

I don't believe Zigbee qualifies as a true open protocol. Unlike Wi-Fi, BACnet or the Ethernet, each Zigbee implementation is custom and proprietary. All current lighting control solutions that use Zigbee are not interoperable. Stranded assets will likely ensue as the lighting / HVAC industry rolls out "new" open control systems in 2018 that, like Wi-Fi, are in fact truly open and interoperable.

Furthermore, I continue to be concerned that if the new 110.12 language does not explicitly state the following (below), we may see mostly non-DR enabled buildings as we have in 2017.

*"DEMAND RESPONSIVE CONTROL is an automatic control that is capable of receiving and automatically responding to a demand response signal"*

Lastly, is the CEC planning to require a local VEN as Gabe Taylor said in his OpenADR Alliance webinar last month? Please know that very low cost, local hardware VEN's are possible ... and on the immediate horizon.

In my mind a code that allows for *either* a local or cloud based OpenADR 2.0 solution will allow the marketplace to deliver the most cost effective DR solution for the many different commercial building applications – especially when retrofitting our existing building stock.

Best,  
Tom

**intelligent** efficiency  
*integrated lighting & hvac solutions*

san diego, california  
619-709-9909

---

**From:** Strait, Peter@Energy [mailto:[Peter.Strait@energy.ca.gov](mailto:Peter.Strait@energy.ca.gov)]  
**Sent:** Tuesday, February 06, 2018 8:20 AM  
**To:** Tom James  
**Subject:** RE: T24 2019 - latest draft DR language

Dear Mr. James,

Thank you for contacting us with your concerns. As a note, the proposed 2019 specifications do not prohibit or restrict the inclusion or use of other protocols, including proprietary protocols. The intent is

to ensure that at least one open protocol is available for use, in order to prevent stranding of buildings if a proprietary operator ceases operation or deprecates the device's proprietary protocol.

In the Express Terms automatic behavior is part of the definition of a demand responsive control; "demand responsive control" is defined as follows:

DEMAND RESPONSIVE CONTROL is an automatic control that is capable of receiving and automatically responding to a demand response signal.

Automatic behavior is also specified in JA5.2.6, Required Functional Behavior, subpart (b), which reads as follows:

Demand Responsive Control. Upon receiving a price signal or a Demand Response Signal, OCSTs shall be capable of automatic event response by adjusting the currently applicable temperature setpoint by the number of degrees indicated in the temperature offset (heating or cooling, as appropriate).

I can review your additional materials following the hearing, though I wanted to provide this quick response to assist you in composing formal comments. If you have any additional questions, please let us know.

Best regards,

Peter Strait  
Supervisor, Building Standards Office  
California Energy Commission  
1516 9<sup>th</sup> Street, MS 37  
Sacramento, CA 95814  
(916) 654-2817

**From:** Tom James [<mailto:tdjames@san.rr.com>]  
**Sent:** Monday, February 05, 2018 4:53 PM  
**To:** Strait, Peter@Energy  
**Subject:** T24 2019 - latest draft DR language

Peter:

I'm concerned that the latest 45 day draft language regarding demand response (attached) has no language that makes clear that a DR system must be able to **automatically receive** and **automatically respond** to an OpenADR 2.0 demand response signal. The "automatically receive / respond" language was in an earlier 2019 draft (attached) and is currently in the 2016 code language (attached). Given the lighting industry continues to gain approval for projects that do not meet the core intent of the 2016 code, namely to deliver demand response capable buildings, I am puzzled why this seemingly critical wording has been omitted. Do you know why?

I am also concerned that the CEC has decided to specify which communication protocols can or must be used within the building interior. Please know that Zigbee based control solutions are by necessity custom and proprietary implementations of the Zigbee software stack by each individual manufacturer. Every Zigbee lighting control solution currently on the market is different from its competitors and not interoperable ... let alone future proof.

Best,  
Tom

*PS: Also, by specifying the communication protocol, the CEC may be unwittingly barring much more open (and cost effective) communication protocols that are currently being readied for deployment in 2018. These "new" communication protocols are based on existing industry standards and have the potential to radically increase the percentage of demand response capable buildings in our state.*

**intelligent** efficiency  
*integrated lighting & hvac solutions*

san diego, california  
619-709-9909

---

Commenter's permission to post.

**From:** Tom James [<mailto:tdjames@san.rr.com>]  
**Sent:** Wednesday, February 07, 2018 11:54 AM  
**To:** Taylor, Gabriel@Energy <[Gabriel.Taylor@energy.ca.gov](mailto:Gabriel.Taylor@energy.ca.gov)>  
**Cc:** Strait, Peter@Energy <[Peter.Strait@energy.ca.gov](mailto:Peter.Strait@energy.ca.gov)>; Bozorgchami, Payam@Energy <[Payam.Bozorgchami@energy.ca.gov](mailto:Payam.Bozorgchami@energy.ca.gov)>  
**Subject:** RE: T24 2019 - latest draft DR language

Gabriel,

Thanks for your email. Yes, I'm happy to talk this afternoon; what time slots are good for you? And yes, you may docket our email exchanges.

Look forward to connecting with you today.

Best,  
Tom

---

**From:** Taylor, Gabriel@Energy [<mailto:Gabriel.Taylor@energy.ca.gov>]  
**Sent:** Wednesday, February 07, 2018 11:25 AM  
**To:** Tom James  
**Cc:** Strait, Peter@Energy; Bozorgchami, Payam@Energy  
**Subject:** RE: T24 2019 - latest draft DR language

Tom,

Thanks for the comments. Do you have time for a phone call today or later this week? Also, may we docket this email exchange for our rulemaking record? Thanks.

**Gabriel D. Taylor, P.E.**  
Mechanical Engineer

*California Energy Commission*  
P 916.654.4482

