

DOCKETED

Docket Number:	19-BSTD-03
Project Title:	2022 Energy Code Pre-Rulemaking
TN #:	234184
Document Title:	Controlled Environmental Horticulture Comment Comments
Description:	Comment by Amber Morris, NoCal Cannabis Company docketed by staff at the commenter's request
Filer:	Adrian Ownby
Organization:	NorCal Cannabis Company
Submitter Role:	Public
Submission Date:	8/3/2020 1:28:07 PM
Docketed Date:	8/3/2020

July 31, 2020

Submitted via email: info@title24stakeholders.com

To whom it may concern,

Thank you for providing stakeholders the opportunity to comment on the findings and proposals outlined in the CASE Report (“report”) for Controlled Environment Horticulture. NorCal Cannabis Company (“NorCal”) has roughly 60,000 sqft of licensed, indoor cannabis cultivation between our facilities located in Santa Rosa and San Francisco and since the onset of Adult Use legalization in California we have created 150 jobs in cannabis cultivation and processing. We ask that the information provided below be considered and addressed in the final CASE Report.

To premise our comments, NorCal recognizes the environmental footprint of indoor cannabis cultivation and is generally supportive of improved sustainability within our sector of the legal California cannabis industry. With that, we ask that the path that leads legal indoor cannabis cultivators towards California’s energy goals is reasonable and fair, especially when compared to similar efforts undertaken for other industries driving towards the same GHG reduction goals.

Below is a summary of our comment topics. Further information is provided for each topic in the following pages.

Reconsider Implementation Timeframe

- Delay implementation to improve technology development and cost effectiveness
- Require performance measures instead of prescriptive measures

Provide Conclusive Data to Support the Following Findings

- LED lighting leads to significantly higher yields per kilowatt-hour compared to HPS lighting
- California has experienced a marked increase in the number of CEH facilities
- Indoor CEH businesses are able to absorb costs for higher standards based on profitability
- A lower PPE for greenhouses provides an option for growers to switch from indoor to greenhouse growing if they want to use legacy lighting

Need to Address

- The barriers to entering the legal cannabis industry the proposed requirements may cause
- How the recommendations compliment, duplicate or supercede current GHG reduction requirements outlined in California Code of Regulations, Title 3, Section 8305
- How the recommendations compliment, duplicate or supercede current requirements of the California Environmental Quality Act (CEQA)

Parity

- Address the need for indoor cannabis cultivation to be fast tracked compared to other industries moving towards California GHG goals

Reconsider Implementation Timeframe

- **Delay implementation to improve technology development and cost effectiveness**

We would like to emphasize that lighting and dehumidification used in controlled environment horticultural (CEH), particularly in indoor cultivation, are not used as an indirect accessory, but instead are an essential tool in the outcome of the agricultural product. The proposed prescriptive requirements will not only impact indoor cultivators infrastructure costs (lighting, dehumidification and reconfiguration of cultivation space), but will be a new significant factor likely to negatively affect the value of the product through reduced yields and/or quality.

Lighting: While the use of LED technology for creating CEH has improved recently, there is a lack of data that conclusively demonstrates this emerging technology is able to consistently match yields and quality grown with alternative lighting, particularly in the flowering stage. The legal industry recognizes that LED technology is likely the future of indoor cannabis but by no means is there a consensus amongst industry experts that LED technology has fully achieved the needs of scaled commercial indoor cultivation.

The report presents findings, admittedly based on limited data, that LED lighting leads to significantly higher yields per kilowatt-hour compared to HPS lighting (page 43). Of the four specific examples cited in the report that some cannabis growers have successfully adapted to LED (page 43), the first example only applies to success with LEDs used during the vegetative stage, the second example does not address yields, the third example reported decreases in yield, while the fourth example also fails to demonstrate LED yielded the same as HPS.

Dehumidification: If the use of LEDs becomes required, the report does not contemplate the dehumidification loads required to achieve proper removal when using tactics that permit efficient production (aka high yield per watt of power used) which could be very high due to decreased use of AC units that traditionally remove the majority of the transpired water in an HPS-grown crop. The interactions between lighting and dehumidification systems and comprehensive energy use in indoor commercial cultivation settings need to be better studied and understood before implementing requirements.

Reuse of transpired water: As a commercial indoor cultivator, we have experienced that recycling of dehu/HVAC condensate often comes with oil that is very difficult and expensive to fully separate from the water, and can damage plant roots. The cost of oil removal and potential devalue of the product based on root damage are not considered in proposed requirements.

It is important to recognize that although cannabis has been grown indoors in California for decades, only with recent legalization are we beginning to collect reliable information about energy use and production capabilities. **Basing new requirements on limited data, assumptions, and speculation is irresponsible.** With that, we respectfully request that CEH lighting and dehumidification regulations be delayed until there is widespread consensus and conclusive evidence that required equipment is at least as reliable with production yields and quality as equipment used by the vast majority of indoor cultivators today.

- **Require performance measures instead of prescriptive measures**

If the decision is made to regulate CEH effective 2023, we urge the CEC to consider performance measures instead of prescriptive measures. As part of the California rulemaking process “...It is the intent of the Legislature that agencies shall actively seek to reduce the unnecessary regulatory burden on private individuals and entities by substituting performance standards for prescriptive standards wherever performance standards can be reasonably expected to be as effective and less burdensome...” (Government Code 11340.1)

A performance standard means a regulation that describes an objective with the criteria stated for achieving the objective vs. prescriptive standard which means a regulation that specifies the sole means of compliance with a performance standard by specific actions, measurements, or other quantifiable means.

Because of the very real potential impacts to the value of our product based on the prescriptive requirements proposed in the report, we request that performance standards be contemplated to give indoor cultivators a reasonable objective that allows them to determine the means of achieving the objective.

Provide Conclusive Data to Support the Following Findings

- **LED lighting leads to significantly higher yields per kilowatt-hour compared to HPS lighting**
See comments above. We do not agree that the report conclusively demonstrates this finding or that this finding is supported by the majority of industry experts.
- **California has experienced a marked increase in the number of CEH facilities** (page 8)
It is important to accurately portray the increased energy demands caused by those the proposals intend to regulate. The report finds that “California has experienced a marked increase in the number of CEH facilities, particularly indoor CEH facilities in urban areas.” While it is fair to say that legal CEH facilities have increased, the report fails to address the illegal market that existed before legalization and continues to exist after legalization. We request that the report better demonstrate the increased energy demands by CEH facilities.
- **Indoor CEH businesses are able to absorb costs for higher standards based on profitability** (page 20, 41). The report proposes to carve out the majority of traditional agriculture from the higher lighting standards and dehumidification requirements partially based on profit margins of indoor cultivators. What the report fails to consider when assuming indoor cultivators are profitable enough to cover the cost of the requirements proposed for indoor CEH is the disparity between regulatory licensing, compliance and taxation of cannabis vs. traditional agriculture. Additionally, the report fails to recognize that indoor cannabis cultivators do not have access to banking, yet large upfront costs are the only way the impacted industry will be able to comply. We believe the report needs to better demonstrate the cost effectiveness of the proposal and the insinuation that indoor cultivators are able to absorb higher costs of compliance, especially when admittedly the “economic impacts developed for this report are only estimates and are based on limited and to some extent speculative information.” (page 55-56).

- **A lower PPE for greenhouses provides an option for growers to switch from indoor to greenhouse growing if they want to use legacy lighting** (page 20, 38, 41)

Though it is possible for those entering the legal cannabis market to decide if they want to grow in greenhouses or indoors, not all local governments allow greenhouse cultivation so the option is not always available. Additionally, this is not a viable alternative for indoor cultivators operating when regulations take effect. Existing operators will still be required to comply with new standards if they meet one of the qualifying addition or alteration triggers. Existing operators cannot change license types from indoor to greenhouse without starting the entire, lengthy and expensive state licensing and local permitting process over. The report does not adequately address the hardship the new requirements place on existing operators who may trigger the new requirements.

Need to Address

- **The barriers to entering the legal cannabis industry this may cause**

Understandably the report takes a narrow focus on energy efficiency. However, in a newly legalized industry it is important that this process consider how the proposal will impact California's goal of creating a successful legal cannabis industry. In order for legal cannabis businesses to succeed, a larger percentage of the cannabis transactions need to occur in the regulated, legal environment. The unlicensed cannabis cultivation in the State needs to have a practical path for getting licensed and these recommendations may be creating more barriers in an industry that is already facing unprecedented regulatory burden. It is no secret that California has failed to transition the majority of those who have operated in the traditional market for decades to the legal marketplace. The California legislature and State cannabis licensing authorities are working to close that gap. The report proposes to add a substantial new cost to indoor cannabis cultivators, thereby increasing the barriers the state is working to reduce. We request that the report address the macroeconomic impacts of the proposed requirements.

- **How the recommendations compliment, duplicate or supersede current GHG reduction requirements outlined in California Code of Regulations, Title 3, Section 8305**

Again, the report takes a narrow focus on energy efficiency but does not recognize that indoor and mixed-light (tier 2) cannabis cultivators will be required to address GHG emissions through renewable energy requirements beginning in January 1, 2023 which require licensees to "ensure that electrical power used for commercial cannabis activity meets the average electricity greenhouse gas emissions intensity required by their local utility provider pursuant to the California Renewables Portfolio Standard Program." Though we recognize that energy efficiency and renewable energy differ, we would like the report to address how the proposed requirements complement, duplicate or supersede the GHG reductions required by California Code of Regulations, Title 3, Section 8305.

- **How the recommendations compliment, duplicate or supersede current requirements of the California Environmental Quality Act (CEQA)**

In addition to GHG mitigations required by California Code of Regulations, Title 3, Section 8305, all licensed cannabis businesses are required to address compliance with the California Environmental Quality Act (CEQA) at the State and local level. What this means is that the site specific project is reviewed at two levels (state and local) to determine whether the project will cause a significant environmental impact, including required analysis of GHG emissions. Local

permits and annual state licenses are not awarded until each applicant can demonstrate that their project meets CEQA standards. We would like the report to address how the recommendations complement, duplicate or supersede compliance with CEQA.

Parity

- **Address the need for indoor cannabis cultivation energy efficiency to be fast tracked compared to other industries moving towards state GHG goals**

It has been suggested that by implementing the proposed requirements in 2023, indoor cultivators are being given ample time to adjust to a completely new method of cultivating cannabis, we disagree. It appears that the proposed CEH regulation process is skipping several critical steps that offer business friendly incentives to help transition industries to new technologies while allowing the cost of new technology to go down before full compliance is mandated. Examples of Industries that have gone through incentivized-market transformations include solar photovoltaic, CFLs, consumer and commercial LED, building standards (HVAC, insulation, air tightness, windows), transportation-fuel standards, and electric vehicles. We request that the report address why a similar approach is not being considered for CEH.

In conclusion, it is our opinion that the report lacks adequate evidence that the proposed requirements are founded in reliable data, especially findings that address technology and cost effectiveness. As an existing operator, we also want to express that though efforts were made, existing operators were not meaningfully engaged in the process until too late. We have serious concerns about the implications if we were to trigger the need to comply after 2023. As such, we request that the CEH requirements be delayed until the next round of California Energy Efficiency Building Standards, providing a reasonable opportunity for meaningful engagement with the impacted industry at large, improved technology data to base requirements on, and a better understanding of cost effectiveness.

Sincerely,



Amber Morris
Director of Government Affairs
[NorCal Cannabis Company](#)