

## Energy and Environmental Plan Guidance

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### Energy and Environmental Plan: Regulatory Conditions That Must be Met Before Receiving a License

Unless otherwise noted, all uses of the term “Section” refer to the Office of Cannabis Management’s (“the Office”) adult-use regulations as promulgated in Title 9 of the New York Codes, Rules and Regulations (NYCRR).

Section 125.2(c) of the Office’s adult-use regulations outlines licensee requirements for submitting an Energy and Environmental Plan. Several elements of this Plan in Section 125.2(c)(1) must be addressed before a license applicant’s application is deemed complete. At this stage in the application process, you will be asked to submit attestations confirming you meet these requirements, outlined below. The Office reserves the right to request proof of compliance with regulatory requirements at all times.

#### Section 125.2(c)(1)(i): Utility Service Request Application

##### **1. What is a utility service request application?**

Section 125.2(c)(1)(i) of the Office’s adult-use regulations states that license applicants must provide *a confirmed receipt of a submitted utility service request application*.

This requirement applies to all operations licensed for cultivation, including all tiers of cultivators, cooperatives and collectives, microbusinesses, nurseries, RODs and RONDs and must be met before a license application is deemed complete for filing. This information is confirmed via an attestation during the licensing process.

Cannabis cultivation in controlled environments such as indoor grows and mixed light greenhouses can be energy intensive. The purpose of this regulation is to ensure utility service providers (in this case meaning electric service providers and electric and natural gas service providers) are aware of proposed cannabis cultivation facilities being built or commencing operations in their territory early in the planning process. This will help the service providers be adequately prepared to serve the new loading requirements and better understand future energy needs of the proposed facility, which will ultimately help protect the state’s electric grid from unexpected surges in demand.

As part of new electric service/loading requests the utility service providers ask customers to submit a utility service request early in the planning process and prior to providing electric service to the site. Information required by a utility service request includes but is not limited to estimated delivery voltage, service size and a list of equipment that will be operated on-site. Figure 1 is an image showing the type of information typically contained in a utility service request.

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Figure 1: Example of a Utility Service Request

Requested Delivery Voltage:			
<input type="checkbox"/> Up to 2.2 KV	<input type="checkbox"/> 2.2 to 15 KV	<input type="checkbox"/> 22 to 50 KV	<input type="checkbox"/> Over 60 KV
<input checked="" type="checkbox"/> TBD, UP TO SUPPLIAR			
Service Size:		Voltage:	
<input type="checkbox"/> 100 Amp	<input type="checkbox"/> 120/240 1Ø	<input type="checkbox"/> Overhead	<input checked="" type="checkbox"/> Underground
<input type="checkbox"/> 150 Amp	<input type="checkbox"/> 120/208 1Ø	<input type="checkbox"/> TBD, UP TO SUPPLIAR	
<input type="checkbox"/> 200 Amp	<input type="checkbox"/> 120/208 wye 3Ø		
<input type="checkbox"/> 400 Amp	<input checked="" type="checkbox"/> 277/480 wye 3Ø		
<input type="checkbox"/> 800 Amp	<input type="checkbox"/> 240 delta 3Ø		
<input type="checkbox"/> 1200 Amp			
<input checked="" type="checkbox"/> Other	2@3000A		

  

Equipment List:	Connected Load	Estimated Demand	KVA
Lighting	109 kw	109 kw	_____
Heating Equipment	74 kw	0 kw	_____
Cooling Equipment	940 kw	705 kw	_____
Ventilation Equipment	20 kw	20 kw	_____
_____	_____ kw	_____ kw	_____
_____	_____ kw	_____ kw	_____
_____	_____ kw	_____ kw	_____
Total Motor Load	2135 (940 abv)kw	1388 (705 abv) kw	_____
Miscellaneous	1922 kw	1441* kw	_____
<b>SUBTOTAL:</b>	<b>3064</b>	<b>2274</b>	_____
+ Future Expansion	0 kw	0* kw	_____
<b>TOTAL KW</b>	<b>3064 KW</b>	<b>2274* KW</b>	_____

  

Motors – Item	Code Letter	Full Load Amps	Horse Power	Voltage	Phase	# Starts Per Hr/Day/Wk/Etc
air compressor	VFD	124	3@100	480	3	Starts Per _____
H2 skid	VFD	96	2@75	480	3	Starts Per _____
H2 skid	?. Across Line	34	2@25	480	3	Starts Per _____

### 2. Where can I find more information about utilities service requests?

Below are links to information from New York State’s (NYS) investor-owned electric and electric and natural gas utilities regarding service request applications. If your utility service provider is not listed below, please contact your service provider directly for further assistance.

#### Con Edison

- <https://www.coned.com/en/contact-us>
- <https://www.coned.com/en/small-medium-size-businesses/building-project-center/contractor-resources/applications-and-affidavits>
- <https://www.coned.com/en/small-medium-size-businesses/building-project-center>

#### Central Hudson

- <https://www.cenhud.com/en/business-customers/>
- <https://www.cenhud.com/en/contractors/new-service-requests/>
- <https://www.cenhud.com/en/forms/commercialindustrial-account-application/>

#### National Grid

- <https://www.nationalgridus.com/media/pronet/uny-electric-service-request-form.pdf>
- [https://www.nationalgridus.com/media/pronet/constr\\_esb750.pdf](https://www.nationalgridus.com/media/pronet/constr_esb750.pdf)

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<https://www.nationalgridus.com/contact-us>

<https://shovelready.com/>

### **Orange and Rockland**

<https://www.oru.com/en/contact-us>

<https://www.oru.com/en/small-medium-sized-businesses/project-center>

<https://www.oru.com/en/small-medium-sized-businesses/project-center/contractor-resources>

### **NYSEG & RGE**

<https://www.nyseg.com/support/contactus>

<https://www.nyseg.com/account/moving/buildingandremodeling>

<https://www.rge.com/support/contactus>

<https://www.rge.com/account/moving/buildingandremodeling>

### **3. How do I figure out who is my utility services provider?**

Clicking [on this link](#) will direct you to a Department of Public Services document that outlines which utility service providers operate in which NYS counties.

### **4. How will I confirm a submitted utility service request application in my Energy and Environmental Plan?**

You may be asked to provide proof of this document to the Office as part of your license renewal process or through future compliance checks. Such proof may include but not be limited to a copy of your electric or electric and natural gas utility service request application for all licensed premises or a copy of your most recent electric or electric and natural gas bill for each licensed premises where cannabis activity occurs.

### **Section 125.2(c)(1)(ii): Proof of Water Sources**

### **5. What information do I need to include as proof of my water sources in my Energy and Environmental Plan?**

Section 125.2(c)(1)(ii) of the Office's adult-use regulations requires applicants to submit a *description of all water sources that shall be used in the cultivation or processing of cannabis or cannabis products*. This requirement applies to all operations licensed for cannabis cultivation and processing, including all tiers of cultivators, cooperatives and collectives, microbusinesses, nurseries, RODs, RONDs and processors and must be met before a license application is deemed complete for filing. This information is confirmed via an attestation during the licensing process.

You may be asked to provide proof of your water source to the Office as part of your license renewal process or through future compliance checks. Such proof may include but not be limited to a description

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of your water source (including ground, surface, well or municipal) for all licensed premises where cannabis activity occurs (ex. a map or other documentation describing the on-site location of a well) or a copy of your most recent water utility bill for each licensed premises where cannabis activity occurs.

### 6. What water permits do I need to consider as a potential licensee?

Licensees may be subject to several NYS Department of Environmental Conservation (DEC) permitting requirements. That includes water withdrawal permits and Long Island Well permits, as described in 6 NYCRR Part 601 and 602, respectively, and State Pollution Discharge Elimination (SPDES) permits for wastewater, sanitary or stormwater discharges as described in 6 NYCRR Part 750.

Whether these permits are required depends on factors including but not limited to: your water source; the volume of water you will be withdrawing; your wastewater discharge system (i.e. publicly owned treatment works owned by a municipality, on-site disposal or other); and if any industrial activity is exposed to stormwater.

More information about DEC's water permitting programs can be found on the agency's website by [clicking here](#). Questions about proper water disposal, permitting and more can be directed to the DEC Division of Water at [DOWInformation@dec.ny.gov](mailto:DOWInformation@dec.ny.gov).

### 7. Where can I find more information about water efficiency in cannabis cultivation?

Resource Innovation Institute (RII) is a non-profit organization that assesses resource use in cultivation operations and controlled environmental agriculture systems including cannabis. In May 2023, RII partnered with the New York State Energy Research and Development Authority (NYSERDA) and the Office to deliver a webinar on [energy and water efficiency in controlled cannabis cultivation in NYS](#). The webinar is free to access.

RII has also developed multiple webinars and best practices guides on water use efficiency, including a recent guide on [water use circularity in controlled environment agriculture](#). Their [water efficiency catalogue can be accessed here](#), with many of their resources offered free of charge.

In 2020, the National Cannabis Industry Association (NCIA) developed a best practices guide, [Environmental Sustainability in the Cannabis Industry: Impacts, Best Management Practices and Policy Considerations](#), that provides more information about how to implement water use efficiency methods to your operation.

### Section 125.2(c)(1)(iii): Consistency with Statewide Greenhouse Gas Emissions Limits Established in Article 75 of the Environmental Conservation Law

#### 8. What is Article 75 of the NYS Environmental Conservation Law?

Section 125.2(c)(1)(iii) of the Office's adult-use regulations requires licensees to attest that their operations *will not be inconsistent with, and will not interfere with the attainment of, the statewide*

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*greenhouse gas emissions limits established in Article 75 of the Environmental Conservation Law.* This requirement applies to all licensees and must be met before a license application is deemed complete for filing. This information is confirmed via an attestation during the licensing process.

[Article 75 of the NYS Environmental Conservation Law](#) enacts the NYS climate leadership and community protection act (CLCPA, or “Climate Act”), which relates to climate change, renewable energy, labor and job standards, worker protection and climate justice for disadvantaged communities. The purpose of the CLCPA is to assist NYS in achieving greenhouse gas (GHG) emission reductions to a level that will mitigate the global impacts of climate change while improving the state’s resiliency to climate change. Protecting the environment, improving the state’s resiliency to climate change and targeting efforts to benefit communities are also explicit intentions of the [Marijuana Regulation and Taxation Act](#) (MRTA).

### **9. How will I prove that my operations will not be inconsistent with or interfere with attainment of the statewide GHG emissions established in Article 75 of the NYS Environmental Conservation Law?**

At this stage in the application process, you will be asked to complete an attestation that your operations will not be inconsistent with or interfere with the attainment of GHG emissions targets set forth in Article 75 of the NYS Environmental Conservation Law. This attestation is one of several measures the Office has put in place to help individual businesses and the entire industry to stay in line with the state’s GHG emissions reductions goals. Other such measures include resource tracking requirements as defined in Section 123.4(g)(1) and 123.4(g)(2), horticultural lighting equipment efficiency standards as defined in Section 125.1(b) and standards for the type of refrigerants used in heating, ventilation and air conditioning (HVAC) equipment as defined in 125.1(c)(1).

You may be asked to provide proof of your compliance with the CLCPA to the Office as part of your license renewal process or through future compliance checks. Such proof may include but not be limited to an updated attestation or a copy of your most recent resource manager tracking report as defined in Sections 123.4(g)(1) and 123.4(g)(2) for each licensed premises where cannabis activity occurs.

### **10. What are the GHG emissions requirements set forth in the CLCPA?**

The [New York State Climate Action Council Scoping Plan](#) outlines specifics for how NYS is going to collaborate across industries and regions to achieve the requirements set forth in the CLCPA. These requirements include<sup>1</sup>:

- 70% renewable electricity by 2030;
- 100% zero-emission electricity by 2040;
- A 40% reduction in statewide GHG emissions from 1990 levels by 2030;

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<sup>1</sup> New York State Climate Action Council. 2022. “New York State Climate Action Council Scoping Plan.” Online. Accessed Sept. 2023 at <http://www.climate.ny.gov/ScopingPlan>.

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- An 85% reduction in statewide GHG emissions from 1990 levels by 2050; and
- Net zero emissions statewide by 2050.

The Scoping Plan is centered on not only on a science-backed approach to climate mitigation, but justice, economic opportunity and long-term job opportunities for New Yorkers. This aligns directly with the adult-use cannabis industry goals set forth in the MRTA. The [NYS Climate Action Council](#) will update the CLCPA Scoping Plan every five years.

In future years, data collected through measures including but not limited to resource tracking requirements (Sections 123.4(g)(1) and 123.4(g)(2)), shipping manifests (Section 123.8(a)(3)) and other applicable adult-use regulations from the Office may be used to evaluate the performance of individual operators and the entire state industry in reaching the GHG emissions goals of the CLCPA.

If the Office finds that the state cannabis industry is endangering the state's ability to achieve existing GHG emissions reductions goals, or will be out of compliance with future goals, the Office may revise energy and environmental regulations as necessary. This may include but is not limited to specific targets for the levels of GHG emissions allowed by cultivators and processors as well as through delivery and distribution activities. More information about the CLCPA and the industry's participation in its goals will be released in the future.

### Section 125.2(c)(1)(iv): Environmental Sustainability Product Packaging Plan

#### **11. What do I need to include in my Environmental Sustainability Product Packaging Plan?**

Section 125.2(c)(1)(iv) of the Office's adult-use regulations require applicants *seeking a processor, microbusiness, cooperative, ROD, or ROND license that authorizes the packaging and labeling of cannabis products*, to submit an *Environmental Sustainability Product Packaging Plan which describes a retail packaging sustainability program pursuant to Part 128 of this Title*. This requirement applies to processors, microbusinesses, cooperatives and collectives, RODs and RONDs and must be met as a condition of licensure. This information is confirmed via an attestation during the licensing process.

The Environmental Sustainability Product Packaging Plan will outline your plans to incorporate sustainable product packaging into your operations. This plan may include, but is not limited to, reuse strategies for collecting reusable cannabis packaging components to be sanitized and refilled or reused as cannabis packaging, collection or redemption of batteries, cartridges, or vape pens, or sustainable packaging strategies that use non-plastic, compostable or recyclable materials, or packaging materials exceeding 25% post-consumer recycled content.

#### **12. What will I need to submit in my application for an Environmental Sustainability Product Packaging Plan?**

At this stage in the application process, you will be asked to confirm that you have an Environmental Sustainability Product Packaging Plan you will implement, if licensed, as part of the Retail Packaging

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Sustainability Program. The programs listed below are acceptable, but other environmental sustainability programs which reduce the environmental impact of the licensee’s packaging may also be accepted:

- Collecting reusable cannabis packaging components to be sanitized and refilled or reused as cannabis packaging;
- Collection or redemption of batteries, cartridges, or vape pens to ensure this electronic waste is properly disposed of; or
- Using packaging materials that exceed 25% post-consumer recycled content.

If you are licensed, implementing your Environmental Sustainability Product Packaging Plan will be a condition of maintaining a license in good standing. You may be asked to provide your Environmental Sustainability Product Packaging Plan to the Office as part of your updated Energy and Environmental Plan or through future compliance checks.

### **13. Where can I find more information about the Environmental Sustainability Product Packaging Plan and the regulations in Part 128?**

Guidance information is available for the Office’s adult-use [Packaging, Labeling, Marketing and Advertising regulations](#) and this link will take you to the [full text of Part 128](#). Both documents are also available on [the Office’s website](#).

### **Section 125.2(c)(1)(v): Odor Control Standards for Consumption Facilities and Exception Areas**

Section 125.2(c)(1)(v) of the Office’s adult-use regulations outlines odor control standards for limited retail consumption facilities and exception areas. Guidance related to limited retail consumption facilities and exception areas will be released by the Office in the future.

## **Energy and Environmental Plan: Regulatory Conditions That Must be Maintained and Made Available Upon Request**

Section 125.2(c)(2) of the Office’s adult-use regulations requires licensees to maintain and update components of their Energy and Environmental Plan after they have received a license. Although a licensee may not be required to submit their Energy and Environmental Plan to the Office until the first license renewal two years after licensure, the Energy and Environmental Plan is a requirement for initial licensure; licensees must adhere to these regulations, maintain their Energy and Environmental Plan, and make their Energy and Environmental Plan available to the Office upon request. More information will be made available and certain requirements are outlined below.



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### Section 125.1(a): Odor Control Standards

#### **14. What are the acceptable odor mitigation technologies approved by the Office?**

Section 125.1(a)(1) of the Office's adult-use regulations requires licensees to *use acceptable odor mitigation technology in all consumption facilities, exception areas, nursery areas, propagation areas, or canopy areas that are indoors or in mixed light; processing facilities; or storage areas to mitigate odors to minimize impacts off-site*. This requirement applies to all operations licensed for cannabis cultivation and processing, including all tiers of cultivators, cooperatives and collectives, microbusinesses, nurseries, RODs, RONDs, onsite consumption facilities and processors and must be met before a licensee may begin operations.

At this time, acceptable odor mitigation technology includes activated carbon filtration and vapor-phase systems. The Office is authorized to identify additional odor mitigation technology in future guidance.

Carbon filtration is regarded as the industry's best management practice for controlling both odors and volatile organic compounds (VOCs) from cannabis production and processing. You can purchase stand-alone carbon filtration technology or you can incorporate carbon filtration into your HVAC system. Vapor phase systems are stand-alone systems that work by emitting vapor droplets that neutralize odors through chemical reactions. Unlike carbon filtration, vapor phase systems introduce chemicals into the cultivation or processing area and require careful management to ensure plants and workers are not negatively impacted.

Please note that Section 125.2(b)(8)(iii) requires licensees to submit a description of manufacturer's requirements for maintenance and records of maintenance for all equipment used to meet the Office's energy and environmental standards as part of their Operating Plan. This includes odor mitigation technology; if using carbon filtration, this will include recommendations for changing filters and including records of when filters have been changed.

Depending on the scale and scope of your operation, it may be necessary to change a filter more often than manufacturer's recommendations to mitigate off-site impacts of cannabis odors. Some cultivators will choose to replace filters with each crop cycle, to both ensure the efficacy of the filter and reduce the risk of potential harm to the new crop from any pest or pathogen lingering in the filter. Pre-filters are not required to be installed, but are an additional step licensees can take to control odors and preserve the life of carbon filters.

Conducting regular maintenance on odor mitigation technology equipment as specified by the manufacturer and routine inspections of the equipment, HVAC system and associated ducting will help ensure odors are being mitigated to the most efficient degree. Staff should also be trained on all standard operating procedures regarding odor mitigation technology use, inspection and maintenance.

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A critical component of odor mitigation technology is properly sized equipment. Whether using a carbon filtration system, vapor phase system or other mitigation technology approved by the Office in the future, it must be appropriately sized to effectively mitigate odors off-site. An undersized system will not be adequate to address odors. Additionally, carbon filtration systems should not exceed the maximum rated cubic feet-per-minute rating for air circulation through the filter.

While not required, you may consider having your system reviewed by a Professional Engineer or Certified Industrial Hygienist to ensure it meets competency expectations as well as sufficiency to effectively mitigate odors for all on-site odor sources.

### **15. What are steps licensees can take to help mitigate cannabis odors?**

Other odor control techniques used in cannabis cultivation may include using a smell-proof tent, installing curtains to help contain odors in a given area and growing other plants adjacent to the facility such as terpene-rich herbs and flowers like lavender, mint and basil.

A more technologically advanced step to take is creating a negative pressure environment, where more air is exhausted out of the grow space than is brought in, creating a seal that stabilizes temperature and humidity and reduces odor. Creating air flow from oscillating fans, ideally placed above and below the flowering canopy, can help circulate air and prevent odors from concentrating. Ensuring that indoor air is exhausted or vented to the outside at ground level rather than from the roof or a high-placed vent may help reduce the perception of odor impacts off-site.

Installing air purifiers with high efficiency particulate air (HEPA) filters can also help reduce impacts of both on- and off-site odors. This technology is not sufficient as a stand-alone solution to odor mitigation, but can increase the effectiveness of carbon filtration and vapor-phase systems while also improving air quality.

If possible, siting your cultivation operations in a location that provides a buffer zone to other neighboring businesses and residents may help to mitigate odor impacts off-site. However, many external factors can impact the presence of odors, such as wind speed and direction, temperature and humidity. If a cultivation or processing facility is sited with a buffer zone but is upwind of the prevailing wind direction, distance may not be sufficient mitigate odor impacts.

The Office does not require licensees authorized to cultivate or process cannabis to submit an odor mitigation plan. However, such plans are required in other jurisdictions and can be used to help you manage odors at your operation. These links will take you to odor control templates from the [City of Albuquerque, New Mexico](#) and the [City and County of Denver, Colorado](#). Such templates will help you plan your odor control techniques in advance and help you understand what areas of your cultivation or processing area will need the greatest level of mitigation and when this mitigation will be needed. Cannabis odors are typically most intense during the flowering period, during harvest and drying and during cannabis processing activities. Additionally, odor is subjective; each individual perceives odors

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differently and has their own unique response to odors. Odor perception and response can be impacted by internal factors such as hormones and emotional state, meaning the same person may respond to the same odor differently under varying personal conditions. Managing odors from cannabis cultivation can be further complicated by the ongoing stigma surrounding the cannabis plant itself. Odor complaints against cannabis operations from neighboring businesses and residents have been reported in other states.

While not required, you may also consider purchasing and using an olfactometer, a device that objectively measures ambient odor in the air, as part of your operation's total odor mitigation plan. Odors are notoriously difficult to measure and NYS does not have an odor metric to use as a guideline. Instead, odors must be controlled such that they do not become a nuisance. An olfactometer can help cannabis operations understand their baseline odor levels and identify when additional mitigation techniques are necessary to reduce off-site impacts.

Another step cultivators may consider is to conduct an odor survey of neighboring businesses or residents to understand their perception of odors generated by your operation. This might help you identify areas to improve your odor mitigation strategy and might also encourage neighboring businesses and individuals to view your operation in a more favorable light if they have an issue with odor impacts off-site.

### **16. How will I confirm my odor mitigation technology in my Energy and Environmental Plan?**

In your Energy and Environmental Plan, you must include documentation describing your odor mitigation technology. This documentation can be the same information maintained about your odor mitigation technology on your equipment list, through 125.2(b)(8)(ii), and a description of the odor mitigation technology's manufacturer's requirements for maintenance through 125.2(b)(8)(iii), if applicable, for each licensed premises where cannabis activity occurs. You may be asked to provide this documentation to the Office as part of your updated Energy and Environmental Plan or through future compliance checks.

### **17. Where can I find more information about mitigating odor impacts off-site?**

The [Cannabis Environmental Best Management Practices Guide](#)<sup>2</sup> was developed by the Cannabis Sustainability Work Group, an interdisciplinary and collaborative workgroup, and published by the City and County of Denver in 2021. The guide provides further information about odor mitigation best practices for cultivation and processing of cannabis, in addition to covering many other energy and environment best management practices. The Denver Department of Public Health and Environment

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<sup>2</sup> Cannabis Sustainability Work Group. 2021. "Cannabis Environmental Best Management Practices Guide." Online. Accessed Aug. 2023 from [https://www.denvergov.org/files/assets/public/climate-action/documents/2021\\_cannabis-bmp-guide.pdf](https://www.denvergov.org/files/assets/public/climate-action/documents/2021_cannabis-bmp-guide.pdf).

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published a [Cannabis Environmental Best Practices Management Guide: Air Quality](#) that is specific to air quality and odor considerations.

The journal *Environmental Health Perspectives* published an article, [Odor Control in the Cannabis Industry: Lessons from the New Kid on the Block](#)<sup>3</sup>, in 2022. The paper describes the science behind cannabis-related odors and the steps taken by cannabis growers to prevent neighborhood odor concerns in coastal California.

### 18. What are other air quality considerations I need to keep in mind?

Your facility may be required to apply for air quality permits through DEC or through your county, city, town or village. For example, heating systems and processes that exhaust to the atmosphere and require an air permit or air facility registration from DEC must obtain an issued permit or registration before construction on the facility starts.

More information about air quality permits required at the state level can be found on [DEC Air Pollution Control Permit Program website](#). Guidance and policy documents detailing DEC rules and regulations can be found on the [DEC website here](#).

## **Section 125.1(b) Horticultural Lighting Equipment Standards**

### 19. What are the two different sets of lighting standards?

Section 125.1(b) of the Office’s adult-use regulations describes horticultural lighting equipment standards. The Office has mandated two different sets of lighting equipment standards based on the size of the operation. Nurseries and smaller-scale operators are held to a less stringent standard and are allowed a longer grace period to meet the standard than larger-scale operators.

Section 125.1(b)(2) states *A tier 3 cultivator, tier 4 cultivator, tier 5 cultivator, ROD, or ROND licensee shall use horticultural lighting equipment with a PPE of at least 2.2 μmol/J measured at the lamp. A tier 3 cultivator, tier 4 cultivator, tier 5 cultivator, ROD, or ROND licensee shall meet applicable lighting standards prior to the first license renewal.*

The standard of 2.2 μmol/J measured at the lamp effectively requires operators held to this standard to use light emitting diode (LED) lighting, the most energy-efficient lighting available for horticultural operations. This applies to cultivators in Tiers 3, 4 and 5, RODs and RONDs. These operators must meet this standard by the time of their first license renewal.

Section 125.1(b)(1) states *A nursery, tier 1 cultivator, tier 2 cultivator, cooperative, or microbusiness licensee shall use horticultural lighting equipment with a PPE of at least 1.7 μmol/J measured at the*

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<sup>3</sup> Seltnerich, N. 27 June 2022. “Odor Control in the Cannabis Industry: Lessons from the New Kid on the Block.” *Environmental Health Perspectives* 130(6). Online. Accessed Jan. 2024 from <https://ehp.niehs.nih.gov/doi/full/10.1289/EHP11449>.

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*lamp. A nursery, tier 1 cultivator, tier 2 cultivator, cooperative, or microbusiness licensee shall meet applicable horticultural lighting equipment standards prior to the second license renewal.*

The standard of 1.7  $\mu\text{mol}/\text{J}$  measured at the lamp allows operators to use high-pressure sodium (HPS) lights at the higher end of available efficiency for this type of lighting but can also be met through LEDs. This standard applies to nurseries, cooperatives and collectives, microbusinesses and cultivators in Tiers 1 and 2. These operators must meet this standard by the time of their second license renewal.

Depending on certain factors, including the lighting standard applicable to your license tier, your utility service provider (e.g. your electric utility service provider or gas and electric utility service provider) may be able to offer financial incentives to assist you in purchasing efficient lighting equipment. Other incentive qualifications can include being a ratepayer from a participating utility service provider and purchasing lighting equipment that exceeds the Office's minimum mandates.

Historically, NYS has not had minimum efficiency standards for horticultural lighting equipment. However, it is anticipated that a minimum standard will be adopted when the NYS Energy Code is updated in the future. Minimum standards set in NYS Energy Code at a higher level than the Office's regulations will supersede the Office's regulations. Please note that the NYS Cannabis Control Board (CCB, or "the Board") reserves the right to issue industry advisories, which may be used in the future to update these standards.

### **20. How will I confirm my lighting equipment in my Energy and Environmental Plan?**

You must include documentation describing your lighting equipment in your Energy and Environmental Plan. This description will include the number of lights and their placement within your facility as well as the wattage and photosynthetic photon efficacy (PPE) rating of the lights, in alignment with 125.2(a)(6)(vii). You will also be asked to include information about your lighting equipment on your equipment list, through 125.2(b)(8)(ii), and a description of the lighting equipment manufacturer's requirements for maintenance of the lights through 125.2(b)(8)(iii). The documentation for your Energy and Environmental Plan can be the same information maintained to meet these regulations as described and can include report printouts from your resource tracking submissions used to meet requirements as described in 123.4(g).

If you do not already meet this standard, you will still be required to include a description of your horticultural lighting equipment and maintenance requirements as described above. Additionally, you must include an attestation that you will meet the Office's standards for horticultural lighting equipment by the effective date.

You may be asked to provide this documentation to the Office for each licensed premises where cannabis activity occurs as part of your updated Energy and Environmental Plan or through future compliance checks.

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### 21. Where can I find more information about lighting efficiency and cultivating cannabis with LED lights?

In May 2023, RII partnered with NYSERDA and the Office to deliver a webinar on [energy and water efficiency in controlled cannabis cultivation in NYS](#). The webinar is free to access.

RII has also developed multiple webinars and best practices guides on lighting efficiency and the use of LED lighting in cannabis cultivation. Their [lighting efficiency catalogue can be accessed here](#), with many of their resources offered free of charge.

### Section 125.1(c)(1): Heating Ventilation and Air Conditioning (HVAC) Standards

#### 22. What is a 20-year global warming potential of 10 or less?

Section 125.1(c)(1) of the Office's adult-use regulations requires all licensees who cultivate indoors or in a mixed light facility to use *HVAC and refrigeration equipment which uses a refrigerant with a twenty-year global warming potential of 10 or less unless the licensee has a written plan for managing refrigerant leaks and disposal that has been approved by the Office.*

Please note, if you have not yet met the requirement and are submitting a refrigerant leakage management plan, you do not need to have the Office approve your plan to continue operations. However, if your plan is deemed insufficient upon review, you will be issued a Statement of Findings requiring you to submit a Corrective Action Plan with a timeline for making corrections that must be adhered to.

Section 125.1(c)(3) of the Office's adult-use regulations states *A nursery, tier 1 cultivator, cooperative or microbusiness licensee shall meet applicable HVAC and dehumidification standards prior to the second license renewal.* Section 125.1(c)(4) states *A tier 3 cultivator, tier 4 cultivator, tier 5 cultivator, ROD, or ROND licensee shall meet applicable HVAC and dehumidification standards prior to the first license renewal.*

Nursery, tier 1 and 2 cultivators, cooperatives and collectives and microbusiness licensees shall meet this standard prior to their second license renewal. Tier 3, 4 and 5 cultivators, ROD and ROND licensees shall meet this standard prior to their first license renewal.

Global warming potential (GWP) is a metric developed to provide a way to compare the global warming impact of different gasses. According to the [Environmental Protection Agency](#) (EPA), GWP is a measure of how much energy the emissions of one ton of gas will absorb over a given period of time, relative to the emissions of one ton of carbon dioxide (CO<sub>2</sub>). The larger the GWP, the more the gas warms the climate compared to CO<sub>2</sub>. While the time period used to calculate GWPs is frequently 100 years, the [CLCPA](#) requires NYS to use a 20-year GWP.

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The GWP of a substance is established by the [Intergovernmental Panel on Climate Change](#) (IPCC), an intergovernmental body of the United Nations. The IPCC regularly updates GWP of substances in their IPCC Assessment Report and provides 20-year GWP, 100-year GWP and other metrics. As of August 2023, the most up-to-date assessment of GWP is from the Sixth Assessment report. Clicking on this link will access the [IPCC Sixth Assessment Report](#)<sup>4</sup>. Table 7.SM.6 on pages 16-27 contains a full list of substances and their 20-year GWP.

Some examples of available refrigerants with a 20-year GWP less than 10 are:

- CO<sub>2</sub> or R-744
- Ammonia or R-717
- Hydrofluorolefins (HFOs) like R-1234yf, R-1234ze
- Hydrocarbons like R-600a, R-290

### 23. How will I confirm my use of refrigerants in my Energy and Environmental Plan?

In your Energy and Environmental Plan, you must confirm whether or not you meet this requirement. If you are already using HVAC equipment that uses refrigerants with a 20-year GWP of 10 or less, you must include documentation describing your HVAC and refrigeration equipment in a manner consistent with 125.2(b)(8)(ii) and 125.2(b)(8)(iii).

If you do not already meet this requirement, you must include documentation describing your HVAC and refrigeration equipment in a manner consistent with 125.2(b)(8)(ii) and 125.2(b)(8)(iii) and documentation describing your refrigerant leakage management plan. This plan must include a timeline and process for how you will meet the requirement by the date applicable to your license type (i.e. first license renewal for Tiers 3, 4 and 5 cultivators and RODs and RONDs and second license renewal for Tiers 1 and 2 cultivators, cooperatives and collectives, microbusinesses and nurseries).

Please note, if you have not yet met the requirement and are submitting a refrigerant leakage management plan, you do not need to have the Office approve your plan to continue operations. However, if your plan is deemed insufficient upon review, you will be issued a Statement of Findings requiring you to submit a Corrective Action Plan with a timeline for making corrections that must be adhered to.

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<sup>4</sup> "IPCC Assessment Report." Table 7.SM.6 from Smith, C., Z.R.J. Nicholls, K. Armour, W. Collins, P. Forster, M. Meinshausen, M.D. Palmer, and M. Watanabe, 2021: The Earth's Energy Budget, Climate Feedbacks, and Climate Sensitivity Supplementary Material. In *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)], pp 16-27. Online. Accessed Jul. 2023 from [https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC\\_AR6\\_WGI\\_Chapter07\\_SM.pdf](https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter07_SM.pdf).

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You may be asked to provide this documentation to the Office for each licensed premises where cannabis activity occurs as part of your updated Energy and Environmental Plan or through future compliance checks.

### **24. What should be included in a refrigerant leakage management plan?**

If your HVAC equipment does not yet meet the requirement for using refrigerants with a 20-year GWP of 10 or less, you may alternatively submit a refrigerant leakage management plan to the Office to request approval.

At a minimum, a refrigerant leakage management plan must include:

- The type of refrigerant the equipment currently uses;
- The quantity of refrigerant that has been recharged into the equipment during services (typically reported in pounds) and a description for how you are inventorying your refrigerants (often a maintenance log);
- Procedures you are following to ensure you are meeting all legal and regulatory requirements for managing refrigerants;
- An overview of your leak detection policy;
- A description of how refrigerants will be properly disposed of or recycled;
- A process for switching to refrigerants that have a 20-year GWP of 10 or less, including a timeline for meeting this goal, which may include retrofitting existing equipment or retiring and replacing it; and
- A description of how retired or replaced HVAC and dehumidification equipment will be properly disposed of or recycled.

More information about monitoring and tracking refrigerant leaks and developing management plans can be found on [the EPA website](#).

### **25. Are certain refrigerants prohibited from use in NYS?**

The NYS DEC lists prohibited refrigerants in [6 NYCRR Part 494](#) and the EPA lists prohibited refrigerants in [40 CFR Part 82 \(Subpart G\)](#). In October 2023, the EPA finalized [new prohibitions on hydrofluorocarbons](#), currently described in the federal register. Longer term, these new prohibitions will likely appear in [40 CFR Part 84](#).

Both NYS and the EPA are transitioning to an approach where refrigerants are prohibited based on a GWP for each equipment type or by listing prohibited substances individually. The [NYS Department of State](#) has published a [technical bulletin](#) on the use of alternative refrigerants in the State. The [Office of Climate Change at DEC](#) can also provide additional information on GWP and available refrigerants.

Licensees with questions about 6 NYCRR Part 494 may reach out to [climate.regs@dec.ny.gov](mailto:climate.regs@dec.ny.gov).



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### **26. Where can I find more information about refrigerant management?**

DEC's webpage provides more information about 6 NYCRR Part 494, the State regulations that cover [hydrofluorocarbon standards and reporting](#). These regulations cover refrigerant usage in NYS.

The [EPA provides information](#) about Federal regulations governing refrigerant management, safe handling practices and proper disposal methods for both refrigerants and equipment.

The American Society for Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) has published a position document, [Refrigerants and their Responsible Use](#), that highlights factors to consider when selecting refrigerants in addition to GWP. That includes such factors as potential toxicity, flammability, worker safety, energy efficiency and proper handling and disposal.

### **Section 125.1(c)(2): Dehumidification Standards**

#### **27. Who do dehumidification standards apply to and when must they be met?**

Section 125.1(c)(2) of the Office's adult-use regulations describes the standards for dehumidification equipment for nursery, cultivator, cooperative and collective, microbusiness, ROD and ROND licensees, including dehumidifiers used in drying areas. Tiers 1 and 2 cultivators, cooperatives and collectives, nurseries and microbusinesses must meet these standards by their second license renewal. Tiers 3, 4 and 5 cultivators, ROD and ROND licensees must meet this standard by their first license renewal.

Dehumidification equipment must be one of the following:

- *stand-alone dehumidifiers that have a minimum integrated energy factor of 1.77 L/kWh for product case volumes of 8.0 cubic feet or less, and a minimum integrated energy factor of 2.41 L/kWh for product case volumes greater than 8.0 cubic feet;*
- *an integrated HVAC system with on-site heat recovery designed to fulfill at least 75% of the annual energy for dehumidification reheat;*
- *a chilled water system with on-site heat recovery designed to fulfill at least 75% of the annual energy for dehumidification reheat; or*
- *a solid or liquid desiccant dehumidification system for system designs that require dewpoint of 50°F or less.*

#### **28. What do these dehumidification standards mean?**

*Integrated energy factor* is a dehumidifier energy efficiency calculated by dividing the water removed from the air by the energy consumed, measured in liters per kilowatt-hour (L/kWh) as defined in federal regulation [10 CFR Part 430](#).

*Product case volume* is a measure of the volume that the dehumidifier case occupies, not including duct attachment collars or other external components.

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A *standalone dehumidifier*, also referred to as “*dehumidifier*,” is defined by the U.S. Department of Energy (DOE) in [10 CFR Part 430](#) As a product, other than a portable air conditioner, room air conditioner, or packaged terminal air conditioner, that is a self-contained, electrically operated, and mechanically encased assembly consisting of: (1) A refrigerated surface (evaporator) that condenses moisture from the atmosphere; (2) A refrigerating system, including an electric motor; (3) An air-circulating fan; and (4) A means for collecting or disposing of the condensate. DOE specifications for dehumidifiers can be found in [10 CFR Part 430.32\(v\)\(2\)](#).

Compliance with Section 125.1(c)(2)(i) for standalone or portable dehumidifiers will be measured by the test conditions in [Appendix X1 to Subpart B of 10 CFR Part 430, Title 10](#). 10 CFR Part 430 provides additional definitions and information on testing procedures for dehumidifiers. EPA’s website also hosts information about [dehumidifier efficiency and ratings](#) with links describing key terms.

An *integrated HVAC system* is an HVAC system designed to handle both sensible (temperature) and latent (humidity) heat removal. Integrated HVAC systems may include, but are not limited to: HVAC systems with a sensible heat ratio of 0.65 or less and the capability of providing cooling, dedicated outdoor air systems, single package air conditioners with at least one refrigerant circuit providing hot gas reheat, and dehumidifiers modified to allow external heat rejection.

A *chilled water system* uses chilled water to absorb heat and lower the temperature as opposed to using chilled forced air. The temperature of the warmed water is then lowered through the refrigeration cycle, which typically involves passing through coils cooled by a refrigerant.

*Reheat* is to raise the temperature of air that has been previously cooled either by mechanical refrigeration or an economizer system. Reheating of the air is necessary when air is over cooled to remove humidity but is too cold to re-introduce to the space. The air is then reheated so it will not damage or cause discomfort to the plants or human occupants.

*On-site heat recovery* is obtaining reheat energy by capturing heat from the cooling equipment’s condenser or other waste heat stream. This improves the energy efficiency of HVAC systems and buildings by re-using heat that would have been discarded instead of generating heat from the combustion of fossil fuels or use of an electric appliance.

An integrated HVAC system or chilled water system must *fulfill at least 75% of the annual energy for dehumidification reheat* through on-site heat recovery to meet this regulatory requirement. The level of annual energy for dehumidification reheat through on-site recovery could be specified in the manufacturer’s system description. An HVAC system’s annual energy for dehumidification reheat through on-site heat recovery is typically determined during the facility design phase by an engineer.

A *solid or liquid desiccant dehumidification system* uses either a solid or liquid desiccant material to remove moisture from the air. Some dehumidifiers lose functionality at lower temperatures and

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moisture pulled from the air can freeze on refrigerant coils. A *dewpoint of 50°F or less* protects against this from happening.

These requirements are similar to what is required for indoor growing facilities in the [Washington State Building Code](#) as mandated in the state's [2021 Energy Code](#).

### **29. How will I confirm my dehumidification equipment in my Energy and Environmental Plan?**

In your Energy and Environmental Plan, you must include documentation confirming whether or not you meet this requirement. If you are already using dehumidification equipment that meets one of these standards, you must include documentation describing your dehumidification equipment in a manner consistent with 125.2(b)(8)(ii) and 125.2(b)(8)(iii)

If you do not already meet this requirement, you must include documentation describing your dehumidification equipment in a manner consistent with 125.2(b)(8)(ii) and 125.2(b)(8)(iii) and an attestation that you will meet this requirement by the date applicable to your license type (i.e. first license renewal for Tiers 3, 4 and 5 cultivators and RODs and RONDs and second license renewal for Tiers 1 and 2 cultivators, cooperatives and collectives, microbusinesses and nurseries).

You may be asked to provide this documentation to the Office for each licensed premises where cannabis activity occurs as part of your updated Energy and Environmental Plan or through future compliance checks.

### **30. Where can I find more information about HVAC and dehumidification in cannabis?**

In December 2023, RII, NYSERDA and the Office hosted a webinar on HVAC and dehumidification in NYS cannabis production, [HVAC with Plant Perspective](#), that can be accessed free of charge.

RII has developed several guides on HVAC best practices, including [Best Practices Guide: HVAC in Controlled Environment Agriculture](#)<sup>5</sup>, a guide for controlled environment agriculture generally, and [HVAC for Cannabis Cultivation & Controlled Environment Agriculture](#)<sup>6</sup> with specific information about HVAC in cannabis including helpful information about appropriate sizing, building your team and tips from system design through installation and operation. RII's [full catalogue on HVAC efficiency](#) in cannabis and controlled environment agriculture is available online.

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<sup>5</sup> Resource Innovation Institute. 2022. "Best Practices Guide: HVAC for Controlled Environment Agriculture." Publication of Resource Innovation Institute. Online. Accessed Aug. 2023 from [https://resourceinnovation.org/wp-content/uploads/2022/06/RII-HvacBPG-2022-v4-1.pdf?utm\\_source=CE21](https://resourceinnovation.org/wp-content/uploads/2022/06/RII-HvacBPG-2022-v4-1.pdf?utm_source=CE21).

<sup>6</sup> Schimelpfenig, G. 2019. "HVAC for Cannabis Cultivation and Controlled Environment Agriculture." Publication of Resource Innovation Institute. Online. Accessed Aug. 2023 from [https://resourceinnovation.org/wp-content/uploads/2021/04/RII-HVAC-BPG.pdf?utm\\_source=CE21](https://resourceinnovation.org/wp-content/uploads/2021/04/RII-HVAC-BPG.pdf?utm_source=CE21).

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### **Section 125.1(d)(1): Interval Meter(s)**

#### **31. What is an interval meter and why is it required?**

Section 125.1(d)(1) of the Office’s adult-use regulations states *A nursery, cultivator, cooperative, microbusiness, ROD, or ROND licensee authorized to cultivate indoors, cultivate in mixed light, operate a nursery area indoors, or operate a nursery area in mixed light shall install and use at least one interval meter sufficient to capture and track the energy usage in all areas where licensed activities are conducted.* This requirement applies to all tiers of cultivators, nurseries, cooperatives and collectives, microbusinesses, RODs and RONDs that are authorized to operate indoors or in mixed light facilities and must be met before the licensee can begin operations.

Interval meters record the amount of electricity used over given intervals, often hourly or in 30- or 15-minute increments. Among other things, interval meters can help you understand your total electric consumption due to licensed activities, highlight unexpected power draws, identify spikes that might indicate a malfunctioning piece of equipment and confirm that any lighting schedules you have in place are operating properly. Interval meters give you a better sense of your electric use, which can help you use energy more efficiently in your operation. Efficient electric consumption lessens your total environmental impact while also saving you money.

#### **32. How will I confirm my interval meter in my Energy and Environmental Plan?**

In your Energy and Environmental Plan, you must include documentation that shows the placement of your interval meter. A photograph of the meter’s placement is sufficient to meet this requirement. The presence and location of your interval meter will be confirmed through future compliance checks. You may be asked to provide this documentation to the Office for each licensed premises where cannabis activity occurs as part of your updated Energy and Environmental Plan or through future compliance checks.

#### **33. Where can I find more information about interval meters and energy efficiency?**

Washington State University’s [Energy Program](#) offers a short guide to installing and using energy meters with tips for how to site an energy meter. The guide [can be accessed here](#)<sup>7</sup>. This U.S. Department of Energy article explains [how to read and collect information from an energy meter](#).

In March 2023, RII partnered with NYSEDA and the Office to develop a webinar on [Cannabis Facility Design and Construction](#), including useful tips on maximizing energy and other forms of resource efficiency.

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<sup>7</sup> “The Short Guide to Energy Submetering.” 2019. Publication of The Energy Program at Washington State University. Online. Accessed Aug 2023 from [https://www.energy.wsu.edu/Portals/0/Documents/A\\_Short\\_Guide\\_to\\_Submetering-April2019-FINAL.pdf](https://www.energy.wsu.edu/Portals/0/Documents/A_Short_Guide_to_Submetering-April2019-FINAL.pdf).

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[Greenhouse Lighting and Systems Engineering](#) (GLASE) is a public-private consortium established in 2017 by Cornell University and Rensselaer Polytechnic Institute. GLASE is supported by the New York State Energy Research and Development Authority (NYSERDA) and by industry partners. GLASE’s website provides research, articles and webinars focused on energy efficiency in controlled environment agriculture (CEA). Cornell University’s [College of Agriculture and Life Sciences](#) also engages in and supports research on resource efficiency in CEA.

The [American Council for an Energy-Efficient Economy](#) (ACEEE), a nonprofit research organization, develops policies to reduce energy waste and combat climate change, and features research and other information about energy efficiency in controlled environment agriculture and other industries on their website. The U.S. Department of Energy [hosts a series of videos](#) related to energy efficiency topics.

### **Section 125.1(d)(2): Primary Energy Source(s)**

#### **34. Why is the on-site combustion of fossil fuels allowed for “back-up systems” but not “primary source of energy”?**

Section 125.1(d)(2) of the Office’s adult-use regulations requires certain licensees to *use technologies for the primary source of energy that do not involve on-site combustion of fossil fuels. It is acceptable for such licensee’s emergency back-up system to be technology that involves the on-site combustion of fossil fuels.* This requirement applies to cultivators in tiers 3, 4 and 5, cooperatives and collectives, ROD, and ROND licensees and must be met prior to the first license renewal.

The purpose of this requirement is to ensure the NYS cannabis industry limits its reliance on fossil fuels in cannabis production to the degree possible to help individual producers and the industry remain in compliance with the GHG emissions targets set forth in the CLCPA.

Acceptable alternatives to fossil fuel-based systems include, but are not limited to, ground-source (geothermal) systems, renewable energy sources such as solar or wind (including on-site or community) or air-source heat pump systems.

Fossil fuel-based systems are allowed as a secondary source of energy in the event a facility loses its primary source of energy, such as a grid-related power outage, to ensure the facility’s operations can continue.

#### **35. How will I confirm my primary energy source in my Energy and Environmental Plan?**

In your Energy and Environmental Plan, you must include documentation confirming whether you meet the Office’s primary energy source standards for your license type. If you already meet the standard, you must include documentation describing your primary energy source technology consistent with your equipment list as described in 125.2(b)(8)(ii), and a description of the heating technology manufacturer’s requirements for maintenance consistent with 125.2(b)(8)(iii).

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If you do not already meet this standard, you must include documentation confirming your primary energy technology and maintenance requirements as described above. Additionally, you will be required to include an attestation that you will meet the Office's standards for primary energy source technology prior to the first license renewal.

You may be asked to provide this documentation to the Office for each licensed premises where cannabis activity occurs as part of your updated Energy and Environmental Plan or through future compliance checks.

### **36. Where can I find more information about energy sources available in NYS?**

[NYSERDA](#) is a NYS public entity focused on clean and renewable energy research and adoption, reduction of the state's GHG emissions and finding ways to enhance economic stability through clean energy jobs and infrastructure development. The [NYSERDA website](#) contains information about renewable and alternative energy sources in the state, state and local initiatives towards green technology and information about how to enhance individual business's sustainability initiatives.

## **Section 125.1(e): Water Standards**

### **37. What does it mean for total levels of coliform to be consistent with 10 NYCRR Subpart 5-1?**

Section 125.1(e)(1) of the Office's adult-use regulations require licensees authorized to cultivate to *only utilize water for cultivation or in a nursery area, except for water that is used for drip irrigation and subsurface irrigation, that has levels of total coliform present consistent with 10 NYCRR Subpart 5-1 as tested by an environmental laboratory certified by the New York State Department of Health*. This requirement applies to nurseries, all cultivators, cooperatives and collectives, microbusinesses, RODs and RONDs and must be met prior to beginning operations.

[10 NYCRR Subpart 5-1](#) contains rules and regulations promulgated by NYS to protect present or future sources of the State's water supply. Coliforms are a type of bacteria that exist in the digestive tracts and waste of animals including humans and in plant and soil material. While not all coliforms can cause illness, the presence of coliform in water supplies may indicate the presence of other pathogens that are more difficult to detect than coliforms. By testing for total coliforms, you are assessing the risk that your water supply contains other pathogens and bacteria such as *Escherichia coli* (E. coli). This [NYS Department of Health webpage](#) describes the importance of coliform testing in water supplies.

Water that is used for drip irrigation and subsurface irrigation is exempt from this provision as these types of watering systems are less likely to splash on to cannabis plants and are therefore less likely to contaminate cannabis flower.

Per Table 6 of 10 NYCRR Subpart 5-1.52, a water sample must be absent (negative) of both total coliform and E. coli to not be in violation of the rule.

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### **38. Where do I find an environmental laboratory certified by the New York State Department of Health?**

DOH provides a [searchable online database](#) of accredited environmental laboratories on their website. Labs that test for total coliform can be found by performing an “Advanced Search,” setting “Category” to “Potable Water” and “Analyte” to “Coliform, Total/E. Coli (Qualitative),” and clicking “View Results.” Once the results are displayed, you can further search the list for “Commercial” labs located in a city near you. Contact the lab, and they will provide you with a sampling kit and directions on how to properly sample your water supply. Upon testing your water sample, a commercial lab will provide you with a certificate of analysis reporting results for both Total Coliform and E. coli.

### **39. How will I confirm my total coliform levels in my Energy and Environmental Plan?**

In your Energy and Environmental Plan you must include the most recent copy of your DOH lab-certified water test results. Please note that you must maintain compliance with Section 125.1(e)(1) at all times and must make your most recent water test available upon request. You may be asked to provide this documentation to the Office for each licensed premises where cannabis activity occurs as part of your updated Energy and Environmental Plan or through future compliance checks.

#### **Section 125.1(f): Indoor Air Quality Standards**

Section 125.1(f) of the Office’s adult use regulations outlines indoor air quality standards for limited retail consumption facilities and exception areas. The Office will release further information about these standards in the future.

#### **Section 125.1(g): Issuance of Industry Advisories**

Pursuant to Section 125.1(g) the Office may issue industry advisories pertaining to energy and environment standards that may enhance or supersede existing energy and environmental regulations.

## Updated Energy and Environmental Plan: Data That May Be Required

#### **Section 125.2(c)(3): Submission of Other Data for License Renewal**

Section 125.2(c)(3) states *Prior to an application for license renewal being deemed complete for filing with the Office pursuant to section 120.5 of this Title, applicants for renewal may be required to provide an updated Energy and Environmental Plan. Nursery, cultivator, cooperative, microbusiness, ROD, or ROND licensees authorized for cultivation may be required to submit data collected pursuant to section 123.4 of this Title, including, but not limited to, energy tracking and regenerative agriculture practices.*

This may include but is not limited to the data outlined below from Sections 123.4(d), 123.4(e), 123.4(g) and 123.4(h).

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### Section 123.4(d): Regenerative Agricultural Practices

Section 123.4(d) states *A cultivator shall take steps to further the promotion of biodiversity, and shall make evidence of these practices available to the Office upon request, by implementing methods such as the following, as appropriate to the cultivation methodologies and context: (1) intercropping; (2) crop rotation; (3) planting, or promotion of native plants; (4) providing habitat for native animals; (5) planting or promoting specific species that promote native pollinator activities; (6) protecting native waterways through maintaining wild farm edges and removing invasive species; (7) creating on-farm compost or locally sourcing organic compost to improve soil fertility; or (8) other methods that promote biological diversity as approved by the Office.*

This regulation applies to all licensees authorized to cultivate and nurseries, as appropriate to their cultivation methods and context, and may be required as part of an updated Energy and Environmental Plan submitted prior to license renewal.

#### **40. What has the Office identified as demonstrating steps cultivators have taken to further the promotion of biodiversity?**

As defined in Section 118.1(a)(9), *Biodiversity* means the inter and intra species variety in the natural world and within ecosystems to maintain balance and support life and sustain the resilience of biotic and abiotic species.

Regenerative agricultural practices are a holistic approach to farm management that places priority on soil health. Regenerative practices are site-specific, meaning appropriate practices for one operation are likely to differ from those that are appropriate for another.

As appropriate to the cultivation methods and context, the Office has identified the following as steps to further the promotion of biodiversity: intercropping, crop rotation; planting, or promotion of native plants; providing habitat for native animals; planting or promoting specific species that promote native pollinator activities; protecting native waterways through maintaining wild farm edges and removing invasive species; creating on-farm compost or locally sourcing organic compost to improve soil fertility; or other methods that promote biological diversity as approved by the Office.

#### **41. What other methods to promote biological diversity have been approved by the Office?**

At this time, the Office has not approved other methods that promote biological diversity to meet the requirements of Section 123.4(d).

#### **42. What is considered “evidence” of practices to further the promotion of biodiversity and how will I include this information in an updated Energy and Environmental Plan?**

At this time, the Office will accept documentation from a third-party certification organization as evidence of practices to further the promotion of diversity. The Office will release further information in



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the future. You may be asked to provide this documentation to the Office for each licensed premises where cannabis activity occurs as part of your updated Energy and Environmental Plan or through future compliance checks.

### **43. Where can I learn more about biodiversity, regenerative agriculture and the application of these practices in cannabis cultivation?**

Cornell University has developed the [New York State Cannabis sativa L. Production Manual](#) available online for free. While specific to hemp production, many of the concepts carry over into cannabis produced for THC content.

DEC provides information about biodiversity in NYS and methods to maintain and support native habitats and ecosystems on their website at [www.dec.ny.gov](http://www.dec.ny.gov) including specific information about [protecting biodiversity](#).

The [NYS Pollinator Protection Plan](#) was developed by DEC and AGM to develop best management practices for maintaining biodiversity in the State through management of pollinator habitats. AGM also provides information about [invasive plant and insect species](#) and their monitoring and control.

[Appropriate Technology Transfer for Rural Areas \(ATTRA\)](#) is operated through a cooperative agreement between the US Department of Agriculture and the National Center for Appropriate Technology to support sustainable agricultural practices and knowledge. ATTRA has developed a [wide variety of fact sheets](#) on topics including intercropping, crop rotation, biodiversity and soil health.

[Sun + Earth Certified](#) is a third-party certification program for cannabis. The organization's website contains links to resources, media and videos that further explain issues of regenerative and sustainable cannabis production. Similarly, the [Cannabis Conservancy](#) is a third-party certification program that highlights sustainable practices for cannabis production and offers more information about practices and methods specific to cannabis.

### **Section 123.4(e): Agricultural Inputs**

More information about Section 123.4(e) shall be released in the future.

### **44. Where can I find information about pesticides use on cannabis?**

Pesticides application and use in NYS is regulated by [DEC's Bureau of Pesticides Management](#). The Bureau has developed [a series of webinars](#) related to pesticides use and management that can be found on YouTube. DEC has also developed information related to [special pesticides initiatives](#) in the State, including methods to reduce pesticides use through integrated pest management (IPM) practices and the use of minimum risk pesticides.

The [NYS Pesticides Administration Database \(NYSPAD\)](#) provides an information portal about pesticides products registered in the State. DEC has added pesticide use designations of "CANNABIS" and "HEMP"

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to the NYSPAD database. Pesticide product labels reviewed and deemed acceptable for use are noted in the “Pesticide Use” field with “CANNABIS” and/or “HEMP”. In addition, a designation was also added to indicate if the label specifically lists “HEMP” as a target crop on the EPA stamped “accepted” label. This designation is “HEMP (EPA LABEL)” in the “Pesticide Use” field. The NYSPAD database can be searched for these new pesticide use designations and the results can be exported to a separate file.

Further information about State-regulated use of pesticides on cannabis plants can be found in the [NYS Pesticide Regulations for Agricultural Production of Cannabis and Hemp](#) fact sheet developed by the DEC Bureau of Pesticides Management and posted to OCM’s website.

### **Section 123.4(g)(1) and 123.4(g)(2): Resource Consumption Tracking**

*Section 123.4(g)(1) states A cultivator shall adopt and use additional energy management practices as determined by the Board, the Office, and any applicable agencies or departments. Cultivators shall maintain and provide the following information at the request of the Office, in a format determined by the Office: (i) energy consumption by source (monthly, including consumption and demand); (ii) water consumption (gallons per month); (iii) on-site generation (monthly); (iv) cannabis yield by dry weight (annual) for the previous 12-month period and for each month of the 12-month period, excluding stalks, stems, and fan leaves; (v) waste (pounds per month); and (vi) any other information as determined by the Office to assist with energy and resource usage reporting.*

*Section 123.4(g)(2) states Cultivators shall use a resource manager to track energy consumption metrics, as approved by the Office, and report utility and energy bills, together with cannabis yield data, to the Office upon request.*

This requirement applies to all licensees authorized to cultivate. Specific deadlines for this reporting will be outlined in future guidance.

In this case, *utility and energy bills* may include but are not limited to billing statements licensees receive from electric service providers, electric and natural gas service providers, natural gas service providers, water service providers and waste management service providers.

#### **45. What is a resource manager and what has the Office specified as an approved resource manager?**

As of August 2024, the Office has specified PowerScore as the approved resource manager to meet resource benchmarking and reporting requirements for licensees authorized to cultivate medical and adult-use cannabis.

PowerScore is a data collection and reporting platform that allows cultivators to benchmark their resource consumption and compare their operation’s key metrics to emerging cannabis industry data. Developed and operated by non-profit organization [Resource Innovation Institute \(RII\)](#), [PowerScore](#) is designed to track resource use for many forms of controlled environment agriculture (CEA), including

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cannabis. PowerScore can track and report metrics including energy and water use and waste and emissions generation.

### **46. What is the purpose of using a resource manager?**

Cannabis production benchmarking metrics have been limited because of the product's history as a Schedule 1 drug and the differing environmental standards promulgated across the various state-level legalized markets. Lacking uniform standards and a clear understanding of resource consumption metrics makes it difficult for the cannabis industry to measure and lessen its environmental impact.

Minimizing adverse environmental impacts of cannabis production and increasing the State's resiliency to climate change were two key intentions of the MRTA. By mandating resource tracking for cultivation licensees, the Office meets the MRTA's intentions, positions NYS as a global leader in resource-efficient cannabis production and ensures the industry stays compliant with the GHG emissions reductions required by the CLCPA. Once benchmarks have been established, the Office can effectively support industry licensees to reach goals of energy efficiency, emissions and waste minimization and water protection. The aggregated data collected through PowerScore will be used to identify program success and challenges for licensed cannabis cultivation in NYS, ultimately serving as guidance for future policy, education, and funding decisions.

For licensees, knowing the level of resource inputs they are using will help them better understand the relationship between their operating costs and their yield. The first year's data will serve as a benchmark licensees can use as an efficiency target to improve resource consumption in future years. This may help licensees to reduce input costs and operating costs, allowing them to maintain greater profit. Licensees who are extremely resource-efficient may also be able to use this information as a tool to earn greater price premiums from consumers who value environmentally friendly production.

### **47. How will I include resource manager information into an updated Energy and Environmental Plan?**

The Office has released a [PowerScore guidance document](#) and an [FAQ document](#) providing more details about PowerScore including reporting deadlines.. Licensees can learn more information about PowerScore on the [Office's Energy & Environmental Sustainability webpage](#) and the [NYS PowerScore landing page](#) on RII's website.

A copy of your most recent resource manager tracking report for each licensed premises where cannabis cultivation activity occurs is sufficient to meet this requirement for your updated Energy and Environmental Plan. You may be asked to provide this documentation to the Office for each licensed premises where cannabis activity occurs as part of your updated Energy and Environmental Plan or through future compliance checks.

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### **Section 123.4(g)(3): Meeting All Applicable Environmental Laws, Regulations and Permitting Requirements**

Section 123.4(g)(3) states *If applicable, have an indoor or mixed-light cannabis cultivation facility that shall satisfy energy and environment standards established by the Office and meet all applicable environmental laws, regulations, permits and other applicable approvals, including, but not limited to, those related to water quality and quantity, wastewater, solid and hazardous waste management, and air pollution.*

This requirement applies to all licensees authorized to cultivate who operate an indoor or mixed-light cultivation facility. However, all cannabis operations licensed by the Office must maintain adherence to all applicable Office, federal, state and local environmental laws, regulations, permitting requirements and other approvals at all times.

### **Section 123.4(h): Cannabis Drying**

Section 123.4(h) states *A cultivator shall: (1) maintain any drying areas in a manner that ensures the areas are clean, well-ventilated, and free from condensation, sewage, dust, dirt, toxic chemicals or other contaminants when used to dry cannabis; and (2) ensure all buildings used for drying provide adequate environmental controls to prevent harmful growth of bacteria or mold and are of adequate size to properly dry the volume of cannabis produced.*

This requirement applies to all licensees authorized to cultivate and all licensees authorized to dry cannabis flower and must be maintained on a consistent, ongoing basis.

#### **48. What does the Office consider “well-ventilated” and “adequate environmental controls...of adequate size” as applies to cannabis drying areas?**

Section 123.4(h)(1) states that any cannabis drying areas shall be maintained in a manner that ensures the areas are clean, well-ventilated and free from condensation, sewage, dust, dirt, toxic chemicals or other contaminants.

Section 123.4(h)(2) states that all buildings used for cannabis drying must provide adequate environmental controls to prevent harmful growth of bacteria and mold and shall be of adequate size to properly dry the volume of cannabis to which they apply.

Using appropriate methods to dry cannabis, including sufficient ventilation and air flow, is critical to preventing mold, bacteria and pathogens to develop on newly harvested cannabis. Proper drying can also impact quality and shelf-life of cannabis. Adequate environmental controls and equipment sizing for cannabis drying is similar to odor control mitigation technology and HVAC and dehumidification equipment in that adequate sizing is dependent on the scale and scope of the facility and will vary across licensed operations.

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### 49. How can I maintain adequate ventilation and environmental controls in my cannabis drying facility?

Many of the same practices and equipment that are used to manage odors and control humidity for cannabis cultivation can also apply to cannabis drying, including maintaining a clean and cleanable area, regularly cleaning between drying cycles and monitoring heat, humidity and air flow:

***Using appropriately sized equipment and engaging in regular inspections and maintenance of equipment.*** As with odor control equipment, using equipment that is of sufficient size for the physical space and the amount of cannabis being dried is key to ensuring effective drying. This includes but is not limited to HVAC systems, dehumidifiers, humidifiers, fans and hygrometers and thermometers.

***Air circulation and ventilation.*** Because the purpose of drying cannabis is to remove water from the buds, air circulation and ventilation are key. Ventilation and air circulation may be achieved by ensuring flow of fresh, filtered air into the drying area and using fans to keep the air moving around the space. It is also important to not overfill the space with drying product to promote air circulation.

***Monitoring and controlling temperature and humidity.*** Humidity is measured using a hygrometer; these can often be purchased as a combination product with a thermometer. Product quality of cannabis can be affected by the temperature and humidity of the drying area. If the temperature is too high and the humidity is too low, the cannabis can dry too quickly. If temperatures are too low and humidity is too high, the cannabis can dry too slowly.

Drying cannabis too slowly or without appropriate ventilation and air circulation can create conditions for mold, bacteria and pathogens to develop. However, drying cannabis too quickly can degrade the quality by vaporizing the terpenes, which provide flavor and aroma, so licensees may find it beneficial to incorporate both dehumidifiers and humidifiers into their drying space.

***Accommodating seasonal fluctuations in heat and humidity.*** Licensees should be advised that ideal cannabis drying conditions can vary at different times of the year depending on external heat and humidity. Methods that work during dryer or cooler months may not work during humid or warmer months. This emphasizes the importance of monitoring conditions in the drying space and keeping records to understand when modifications need to be made.

***Continuously monitoring drying cannabis for presence of mold and pathogens.*** In addition to monitoring conditions in the drying space, licensees should continuously monitor the cannabis itself for the presence of mold and pathogens. In addition to visual inspection, noting how the odor of the drying product changes over time may reveal information about the cannabis. For example, the odor of ammonia may indicate the presence of mold.

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### ***Allowing batches to dry completely and be removed to storage before introducing fresh cannabis.***

Because wet cannabis may have as much as 80% water in wet weight<sup>8</sup> and the goal with drying is to remove water from the product, it is not advisable to introduce freshly harvested product into a room where a previous batch is still drying. Doing so may create the conditions for mold, bacteria and pathogens to develop on the initial batch.

### **50. How will information about my cannabis drying system be included in an updated Energy and Environmental Plan?**

If required, information about cannabis drying equipment will be included in an updated Energy and Environmental Plan via the equipment and technology description as required through Section 125.2(c)(2)(ii). Information about cannabis drying equipment must also be reported in the equipment list as required as part of an Operating Plan through Section 125.2(b)(8)(ii). Through the Operating Plan, licensees will also be required to submit the manufacturer's recommendations for maintenance of cannabis drying equipment and maintenance records as outlined in Section 125.2(b)(8)(iii).

You may be asked to provide this documentation to the Office for each licensed premises where cannabis activity occurs as part of your updated Energy and Environmental Plan or through future compliance checks.

## Energy and Environmental Plan: Related Regulations

### Section 125.2(a)(6)(vii): Description of Lighting Equipment

#### **51. What aspects of the Energy and Environmental Plan relate to the Site Plan?**

Section 125.2(a)(6)(vii) requires that part of a licensee's Site Plan must include *a description of any lighting used in canopy, propagation, and nursery areas which includes the wattage, photosynthetic photon efficacy, and placement.*

This requirement applies to nurseries, all tiers of cultivators, cooperatives and collectives, microbusinesses, nurseries, RODs and RONDs. These licensees shall document, implement and maintain this information as part of their Site Plan and it shall be made available to the Office upon request.

### Section 125.2(c)(2)(ii), Section 125.2(b)(8)(ii) and Section 125.2(b)(8)(iii): Equipment and Technology Description, Equipment List and Maintenance Records

#### **52. How will my operation confirm its equipment and technologies meet or exceed applicable energy and environmental standards?**

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<sup>8</sup> Al Ubeed, H.M.S., R.B.H. Wills and J. Chandrapala. 2022 Mar. 6;27(5):1719. "Post-Harvest Operations to Generate High-Quality Medicinal Cannabis Products: A Systemic Review." *Molecules*. Online. Accessed Mar. 2024 from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8911901/>.

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Section 125.2(c)(2)(ii) requires licensees to update their Energy and Environmental Plan by *submitting a description of the specific equipment or technologies the licensee shall use to meet or exceed applicable energy and environmental standards as set forth in this Part and a statement that the licensee shall meet each energy and environmental standard it does not yet meet prior to the effective date for that specific standard pursuant to section 125.1 of this Part.*

Section 125.2(b)(8)(ii) requires licensees to include as part of their Operating Plan *an equipment list, which shall include, at a minimum, a list of all equipment used in a nursery area or in the cultivation or processing of cannabis.*

Section 125.2(b)(8)(iii) requires licensees to include as part of their Operating Plan a *description of manufacturer's requirements for maintenance and records of maintenance for all equipment on the equipment list that is used to meet energy and environmental standards.*

These requirements apply to all tiers of cultivators, cooperatives and collectives, microbusinesses, nurseries, RODs and RONDs.

These licensees shall document, implement and maintain this information as part of their Operating Plan and their Energy and Environmental Plan and it shall be made available to the Office upon request.

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### **APPENDIX A: Energy and Environmental Plan Template**

#### **Section 125.2(c)(1)(i): Utility Service Request Application**

As applicable, for each licensed premises where cannabis activity occurs, documentation may include but not be limited to:

- a copy of your electric or electric and natural gas utility service request application; or
- a copy of your most recent electric or electric and natural gas bill.

#### **Section 125.2(c)(1)(ii): Proof of Water Sources**

As applicable, for each licensed premises where cannabis activity occurs, may include but not be limited to:

- a description of your water source (including ground, surface, well or municipal) which may include location (ex. a map or other documentation describing the on-site location of a well); or
- a copy of your most recent water utility bill.



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### **Section 125.2(c)(1)(iii): Consistency with Statewide Greenhouse Gas Emissions Limits Established in Article 75 of the Environmental Conservation Law**

As applicable, for each licensed premises where cannabis activity occurs, documentation may include but not be limited to:

- an updated attestation confirming your operations will not be inconsistent with or interfere with the attainment of greenhouse gas (GHG) emissions targets as set forth in Article 75 of the NYS Environmental Conservation Law; or
- a copy of your most recent resource manager tracking report as defined in Sections 123.4(g)(1) and 123.4(g)(2).

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### **Section 125.2(c)(1)(iv): Environmental Sustainability Product Packaging Plan**

Shall include:

- an updated Environmental Sustainability Product Packaging Plan.

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### **Section 125.2(c)(1)(v): Odor Control Standards for Consumption Facilities and Exception Areas**

More information will be released in the future.

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### **Section 125.1(a): Odor Control Standards**

As applicable, for all licensed premises where cannabis activity occurs, may include but not be limited to:

- documentation describing your odor mitigation technology in a manner consistent with 125.2(b)(8)(ii); and
- a description of the equipment manufacturer's requirements for maintenance in a manner consistent with 125.2(b)(8)(iii).
- As applicable, this can be the same documentation as maintained for your Operating Plan.

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### Section 125.1(b) Horticultural Lighting Equipment Standards

As applicable, for each licensed premises where cannabis cultivation activity occurs, documentation may include but not be limited to:

- a description will include the number of lights and their placement within your facility as well as the wattage and photosynthetic photon efficacy (PPE) rating of the lights, in a manner consistent with 125.2(a)(6)(vii); or
  - printouts from your resource tracking submissions used to meet requirements as described in 123.4(g); and
- information about your lighting equipment in a manner consistent with 125.2(b)(8)(ii); and
- a description of the lighting equipment manufacturer's requirements for maintenance of the lights as consistent with 125.2(b)(8)(iii).
- As applicable, this can be the same documentation as maintained for your Operating Plan.

If you do not already meet the standards that apply to your license type, you must also include:

- an attestation that your operations will meet the Office's standards for horticultural lighting equipment by the effective date.

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### Section 125.1(c)(1): Heating Ventilation and Air Conditioning (HVAC) Standards

If you are already using HVAC equipment that uses refrigerants with a 20-year GWP of 10 or less, as applicable, for each licensed premises where cannabis activity occurs, documentation may include but not be limited to:

- documentation describing your HVAC and refrigeration equipment in a manner consistent with 125.2(b)(8)(ii); and
- a description of the equipment manufacturer's requirements for maintenance in a manner consistent with 125.2(b)(8)(iii).
- As applicable, this can be the same documentation as maintained for your Operating Plan.

If you are not already using HVAC equipment that uses refrigerants with a 20-year GWP of 10 or less, as applicable, for each licensed premises where cannabis activity occurs, documentation may include but not be limited to:

- documentation describing your HVAC and refrigeration equipment in a manner consistent with 125.2(b)(8)(ii);
- a description of the equipment manufacturer's requirements for maintenance in a manner consistent with 125.2(b)(8)(iii); and
- a refrigerant leakage management plan.
- As applicable, this can be the same documentation as maintained for your Operating Plan.

At a minimum, a refrigerant leakage management plan must include:

- The type of refrigerant the equipment currently uses;
- The quantity of refrigerant that has been recharged into the equipment during services (typically reported in pounds) and a description for how you are inventorying your refrigerants (often a maintenance log);
- Procedures you are following to ensure you are meeting all legal and regulatory requirements for managing refrigerants;
- An overview of your leak detection policy;
- A description of how refrigerants will be properly disposed of or recycled;
- A process for switching to refrigerants that have a 20-year GWP of 10 or less, including a timeline for meeting this requirement by the date applicable to your license type, which may include retrofitting existing equipment or retiring and replacing it; and
- A description of how retired or replaced HVAC and dehumidification equipment will be properly disposed of or recycled.

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### Section 125.1(c)(2): Dehumidification Standards

If you are already using dehumidification equipment that meets one of the standards as applies to your license type, as applicable, for each licenses premises where cannabis activity occurs, documentation may include but not be limited to:

- documentation describing your dehumidification equipment in a manner consistent with 125.2(b)(8)(ii); and
- a description of the equipment manufacturer’s requirements for maintenance in a manner consistent with 125.2(b)(8)(iii).
- As applicable, this can be the same documentation as maintained for your Operating Plan.

If you do not already meet the standards as apply to your license type, you must also include:

- an attestation that your operations will meet this requirement by the date applicable to your license type.

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### Section 125.1(d)(1): Interval Meter(s)

As applicable, for each licensed premises where cannabis activity occurs, documentation may include but not be limited to:

- documentation that shows the placement of your interval meter.
  - A photograph of the meter's placement is sufficient to meet this requirement.



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### Section 125.1(d)(2): Primary Energy Source(s)

As applicable, if you already meet the standards as apply to your license type, for each licensed premises where cannabis activity occurs, documentation may include but not be limited to:

- documentation describing your primary energy source technology in a manner consistent with 125.2(b)(8)(ii), and
- a description of your primary energy source technology manufacturer’s requirements for maintenance consistent with 125.2(b)(8)(iii).
- It can be the same information maintained for your Operating Plan.

If you do not already meet the standards as apply to your license type, for each licensed premises where cannabis activity occurs, you must also include:

- an attestation that you will meet the Office’s standards for primary energy source technology by the effective date.

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### **Section 125.1(e): Water Standards**

As applicable, for each licensed premises where cannabis activity occurs, documentation must include:

- the most recent copy of your DOH lab-certified water test results.

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### **Section 125.1(f): Indoor Air Quality Standards**

More information will be released in the future.

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### Section 123.4(d): Regenerative Agricultural Practices

As applicable, for each licensed premises where cannabis activity occurs, documentation may include but not be limited to:

- documentation from a third-party certification organization as evidence of practices to further the promotion of diversity.

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### **Section 123.4(e): Agricultural Inputs**

As applicable, for each licensed premises where cannabis activity occurs, documentation may include but not be limited to:

- documentation recorded in accordance with the Operating Plan as described in Section 125.2(b), including through the Equipment List as described in Section 125.2(b)(8)(ii).
- It can be the same information maintained for your Operating Plan.

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### **Section 123.4(g)(1) and Section 123.4(g)(2): Resource Consumption Tracking**

As application, for each licensed premises where cannabis activity occurs, documentation may include but not be limited to:

- a copy of your most recent resource manager tracking report.

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### **Section 123.4(h): Cannabis Drying**

As applicable, for each licensed premises where cannabis activity occurs, documentation may include but not be limited to:

- documentation describing your primary energy source technology in a manner consistent with 125.2(b)(8)(ii), and
- a description of your primary energy source technology manufacturer's requirements for maintenance consistent with 125.2(b)(8)(iii).
- It can be the same information maintained for your Operating Plan.