



Update on Energy Impact with Recreational Cannabis in Illinois

IL SAG Meeting
February 10, 2020



MA Cannabis Baseline Study

- The baseline study to understand lighting equipment in Massachusetts to be completed in late Feb 2020, compliance findings in March 2020
- MA baseline results can help inform anticipated compliance rates in IL
 - Lighting power density of 36 watt/ft² of active growing canopy (same in IL)
 - HVAC and dehumidification must meet current state energy code (not the same language as IL)

MA Cannabis Baseline Study

- Compliance findings in MA could identify potential energy consumption in IL
- Opportunity to discuss utility lighting incentives after seeing baseline results

IL Licensing Update

Department of Agriculture

- Effective 1/1/20, [emergency rules](#) were issued to govern cannabis cultivation, in effect for 180 days.
 - The Dept. will then conduct a standard proposed rule, public comment, and then finalize regulations.
- Dept. largely copied and pasted from statute any of the relevant energy and environmental sections:
 - Energy report with application
 - Lighting power density of 36 watt/ft²
 - Ductless mini-split, VRF, or “more efficient equipment”

IL Licensing Update

Department of Agriculture

- Currently there are 21 cultivation centers licensed.
 - Medical facilities can produce for recreational use.
 - Do not need to comply with the new energy components of the license until March 31, 2022.
 - Likely no more than 9 additional large facilities would be approved in 2021 (law places cap of 30 licenses).
- Dept. will issue 40 craft growers, 40 infuser, and 8 community college programs in 2020.
 - The law authorizes additional licenses beginning in 2021.

IL Licensing Timeline

State and Local Approval Process

- Craft grower applications due: 3/16/20
 - Must comply with lighting and HVAC requirements
 - 36 watts/ft² and “high efficiency ductless split HVAC units, variable refrigerant flow HVAC unit, or more energy efficient equipment”
 - Application scored on a 1,000-point system, 20 points for environmental plan
 - Must submit compliance with local ordinances/approval (this means facilities have already been selected)
- Craft growers can produce to sell: 7/1/20

IL Licensing Timeline

Opportunity to Engage Early

- Additional large cultivation centers can be licensed: 7/1/21
 - Dept. must study supply needs and determine more facilities needed
 - Key group to focus on for EE commissioning/retro-commissioning
- Up to 60 additional craft grower and 60 additional infuser licenses: 12/21/21
 - Will need local approval
 - Key group to focus on for EE commissioning/retro-commissioning
- Dept. studies craft market, can issue more licenses: 2022
 - Capped at 150 total

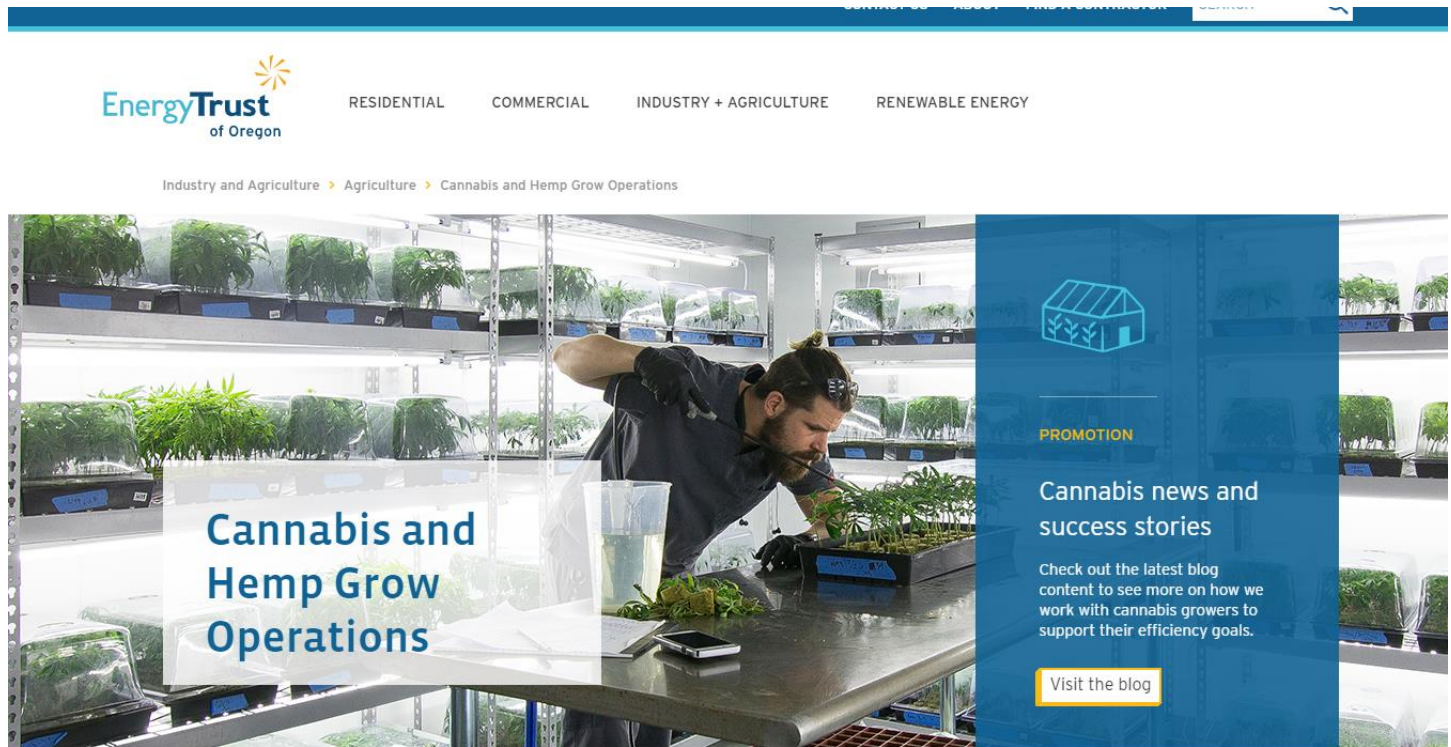
Utility Program Examples

Successful Cannabis Program Models

- Energy Trust of Oregon
 - Technical studies (free for customer) followed by custom projects (\$0.25/kWh and \$2/therm saved)
 - Prescriptive equipment incentives:
 - Insulation
 - Dehumidifiers
 - Dedicated cannabis webpage
 - Case studies:
 - https://www.energytrust.org/wp-content/uploads/2018/10/DeschutesGrower_CS_1809_web.pdf

Utility Program Examples

Successful Cannabis Program Models



The screenshot shows the Energy Trust of Oregon website. At the top left is the Energy Trust of Oregon logo. To its right are navigation links: RESIDENTIAL, COMMERCIAL, INDUSTRY + AGRICULTURE, and RENEWABLE ENERGY. Below these is a breadcrumb trail: Industry and Agriculture > Agriculture > Cannabis and Hemp Grow Operations. The main content area features a large image of a grower in a facility. Overlaid on the image is a white box with the text "Cannabis and Hemp Grow Operations". To the right of the image is a blue sidebar with a house icon, the word "PROMOTION", and the text "Cannabis news and success stories". Below this is a paragraph: "Check out the latest blog content to see more on how we work with cannabis growers to support their efficiency goals." and a yellow button that says "Visit the blog".

Energy Trust of Oregon offers licensed cannabis growers and hemp growers free technical services and cash incentives for the installation of energy-efficient equipment at new and existing grow operations. Incentives are available for indoor, outdoor and greenhouse grow operations.

See the [cannabis and hemp cultivation fact sheet](#) to learn more.

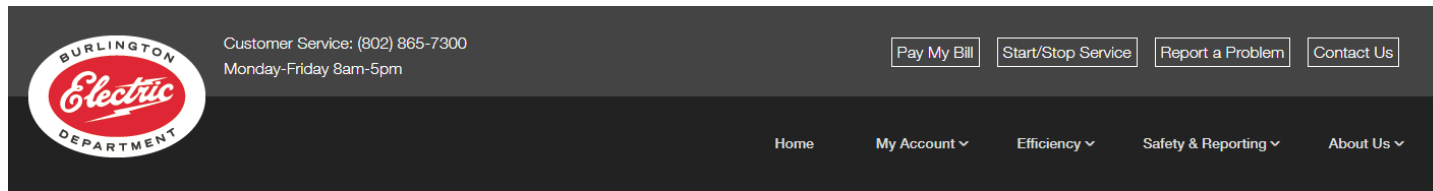
Utility Program Examples

Successful Cannabis Program Models

- Efficiency Vermont/Burlington Electric (agriculture included in both business and residential programs)
 - Not recreationally legal yet. Mainly home grows; commercial growth limited
 - Custom incentives for deep retrofit (requires use of Cannabis PowerScore)
 - Prescriptive equipment incentives:
 - Horticultural LEDs (Efficiency VT or DLC qualified)
 - Ventilation fans
 - Dedicated cannabis webpage with resources

Utility Program Examples

Successful Cannabis Program Models



ENERGY EFFICIENT GROWER'S GUIDE

VERMONT LAW

Understanding Act 86

With the passage of **Act 86** in Vermont, Burlington Electric Department expects increased energy demands due to personal cultivation of cannabis. The **full text of the bill** provides current regulatory requirements for both indoor and outdoor growing.

The current legal cultivation limit per dwelling unit is 2 mature plants and 4 immature plants. Medicinal growers may have higher limits.

Growing your own cannabis requires many considerations, and some choices can significantly impact your energy bills. If growers keep energy efficiency in mind, they can keep the energy costs of growing lower.



GROWING OUTDOORS



GROWING INDOORS



LED LIGHTING



Utility Program Examples

Successful Cannabis Program Models

- Sacramento Municipal Utility District
 - Custom incentives for retrofits
 - Includes LEDs and controls, heating and cooling, pumps, RCx. Total incentive up to 50% of total project cost or \$150,000, whichever is less
 - Savings by Design for new construction
 - Design assistance for either whole building or systems approach. Incentives up to \$150,000
 - Prescriptive equipment incentives:
 - HPS to LED replacement, \$300/fixture, must be on DLC Hort. QPL
 - Dedicated cannabis webpage

Utility Program Examples

Successful Cannabis Program Models



Sign In



Menu



Starting a cannabis business?

See how SMUD rebates can help you save on your
cannabis business

[Begin your application](#)

[Home](#) > [Cannabis operations](#)



Utility Program Examples

Current Tools Available

- The Resource Innovation Institute best practice guides for cultivators
 - Separate guides for HVAC and lighting
 - Emphasizes facility design, understanding equipment types, commissioning, and benchmarking for continuous improvement.
 - Available for download:
<https://resourceinnovation.org/resources/#published-studies>
- Cannabis PowerScore (benchmarking tool)

Open Questions

- Is there an opportunity to incentivize HVAC measures given the language in the legislation?

Thank you!

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