Midwest Energy Solutions Conference

February 2, 2022

Lauren Morlino
Agenda

- About Evergreen
- What’s happening now?
- Who’s involved?
- What’s next?
About Evergreen
Who We Are

- Full-service energy-efficiency consulting firm
- Motivate customers and contractors to participate in utility programs
- Certified B-Corp
- Federally Designated Small Business
- 25 years of experience across the U.S.
- All virtual company

Evergreen Experience by the Numbers

- 80+ team members
- 2,500 trade ally connections
- Serving clients across 11 states
- 10,000+ trainings delivered
- 2 billion kWh saved
Evergreen & Controlled Environment Agriculture

- CEA program design for utilities
- Representation on industry working groups
- Customer outreach—virtual and in the field
- Technology research and reports
- Application research and reports
- Trade ally training
- Program implementation
What’s happening now?
Controlled Environment Agriculture (CEA) Building Types

- **Residential Home Growers**: Fruits, Flowers, Herbs, Veggies, Cannabis
- **Hoop house/High Tunnels**: Fruits, Flowers, Herbs, Veggies, Cannabis
- **Gable-style Greenhouse**: Fruits, Houseplants, Flowers, Herbs, Veggies, Cannabis
- **Indoor Grow Rooms**: Herbs, Mushrooms, Cannabis
- **Drying/Cold Storage**: Fruits, Herbs, Veggies, Cannabis
- **Processing Laboratories**: Herbs, Cannabis
The Research Process

- Research
- Interview
- Create Report
- Pilot Measures
- Final Program Measures
Key Findings

General Discoveries
- Floriculture and Food Crops
- Diverse Existing Technologies
- Utility Incentives + Other Financial Support
- New Construction Potential

Measure Specific Findings
- HVAC Systems
- Thermal Curtains
- Roof Vents
- New Measures
- Existing Agricultural Programs
Who’s involved?
Growers
Partner Organizations

- Agriculture Extensions
  - UVM, MSU, Cornell
- Greenhouse Lighting and Systems Engineering (GLASE)
- Resource Innovation Institute (RII)
- DesignLights Consortium (DLC)
- State Departments of Agriculture
- USDA

- Cannabis Control Board/Legislators
- Utilities and Implementers
- Technical Experts
  - Dr. Greenhouse, Energy350, Energy Sciences
- Trade Allies
  - Product manufacturers, growers’ consultants, greenhouse distributors
- Growers Councils
What’s next?
Post-Harvest Processing

- Drying/curing
- Refrigeration/cold storage
- Cannabis extraction labs
- Commercial kitchens
- Transportation
- Consumption sites
Houseplants

- 65% of growers saw increased sales of tropicals in Spring 2021
- 63% of people <40 y/o said their houseplant collection grew during pandemic
- 57% said houseplants supported their mental health during pandemic
- $110 on average is the most someone would spend for a houseplant
- 15% in productivity
Mushrooms

- Culinary mushrooms CAGR of 8.7% 2020 – 2027
- Medicinal mushrooms CAGR of 9.15% 2021-2025
- High price per pound = margin to re-invest in business
- Psilocybin mental health research is promising
  - [John Hopkins Depression Study](#)
- Psilocybin decriminalized in several locations already.
  - [Seattle, WA; Ann Arbor, MI; Denver, CO; Oakland, CA; Santa Cruz, CA; Somerville & Cambridge, MA; Oregon; and Washington D.C.](#)
- Legal in Oregon for mental health treatment via supervised settings since February 2021
Greenhouse & Indoor-Grown Food

- US CEA Market 2018 trajectory for growth was 3.4% CAGR 2018-2023
- More consumer demand for locally and sustainably-grown produce
- Supply chain issues and inflation affect poorest communities the most
- Climate change forcing food systems to be resilient

Thank you audience & MEEA!

• Reach out via email
  Lauren.Morlino@evergreen-efficiency.com

• Find my colleagues Lindsay Buckwell and Carly Burke at the reception!