Importance of sustainable production practices in the cannabis industry

State of Oregon Cannabis Environmental Best Practices Committee
June 8, 2016

Image: Panacea Valley Gardens
The challenge: Energy

- 1% of US electricity load, $5 billion in US electricity costs
- 2% of Colorado load, 45% of Colorado load growth
- 3% of California load
- Growing cannabis generates 3000x its weight in CO2
- Significant operating expense for an indoor grower

Source: Evan Mills
The challenge: Energy

[Bar chart showing the annual energy use of Denver Marijuana Cultivators from 2012 to 2014.]

Note: Figures based on licensed cultivation in the city of Denver.
Source: Xcel Energy, City of Denver.
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The challenge: Energy
The challenge: Carbon

Source: Evan Mills

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The challenge: Water

- 5-6 gallons of water per day for the average outdoor-grown plant in California (double grapes)
- Appears to be less in indoor grow situations, though undetermined
- Illegal water diversions causing rivers to dry

Sources: USA Today, Scientific American
Responses by other jurisdictions

• Colorado:
  – Issuing RFP for energy and water baseline study
  – Boulder voluntary carbon tax
  – Privately funded water monitoring

• Washington
  – Utilities offering incentives

• California
  – Budgeted $3 million for pilot program to work with growers to develop a regulatory system through technical assistance
  – Developed a tiered regulatory approach (small/large/remedial)
Creating a market-based certification standard to drive energy and water conservation in the cannabis industry
RII Board of Directors

- Margi Hoffmann – energy policy, economic development
- John Morris – utility program design, smart load development
- Derek Smith – scaling public/private programs
- Elizabeth Whalen – LEED, global certification systems
- Alex Tinker – legal, energy, cannabis
Market-driven efforts get results

• Our collective experience in early-stage, energy-and carbon-intensive segments of the economy

• Best outcomes achieved when key market actors band together to shape their own destiny

• Market-driven is most efficient and effective
Our mission

The Resource Innovation Institute provides certification standards, technology reviews and a platform for best practices on resource conservation in the cannabis industry.

- Initial focus: Energy management in indoor grow operations
- Next focus: Water
- Organized as non-profit to serve the public good and the growing cannabis industry with objectivity
How we intend to add value

• Creating venues for exchanging best practices and innovation
• Conducting baseline market studies
• Developing a reliable certification system that signifies environmental responsibility
• Developing member services, education and outreach
• Helping shape and influence a productive regulatory system
Certification standard timeline

ENERGY
2016 M J J A S O N D
- Stakeholder Summit
- Membership
- Technical Advisory Committee

WATER
2017
- v1 of standard
- v2 of standard
- Baseline Study
- Standard Dev

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