MINISTRY OF JOBS, TRADE AND TECHNOLOGY

MEETING NOTE

Cliff #: 145728
Date: July 31, 2019

PREPARED FOR: Honourable Bruce Ralston, Minister of Jobs, Trade and Technology

DATE AND TIME OF MEETING: August 8, 2019, 3:30 – 4:30pm

ATTENDEES: Dan Sutton, CEO; Jody Branter, Director of Operations; and Dr. Steve Lund, Director of Quality Assurance

ISSUE: Tour of Tantalus Labs

BACKGROUND: Tantalus Labs is a private company (receiving an undisclosed amount of VC funding in 2018), that was founded with a commitment to advancing the frontier of cannabis through the use of green technologies. Tantalus is made up of a team of scientists, designers, and engineers committed to using natural light and other GHG reducing approaches to grow cannabis. Indoor cannabis producers currently use nearly 1% of North America's energy. With this in mind, Tantalus Lab designed and built SunLab with the purpose of cultivating cannabis with minimal energy inputs.

DISCUSSION: The tour will provide an opportunity for Tantulas to demonstate how their use of sustainable cannabis cultivation will set a new standard in product quality, while aligning to the goals of CleanBC.

What is the cost of indoor cannabis production?

- 3% of all power in Washington State goes to Cannabis Production
- 3% of all power in California goes to Cannabis production
- 1% of all power in the USA goes to cannabis production
    - This equals to 20 trillion watt hours or,
    - $6,000,000,000 in electricity cost or,
    - 3 million American homes

Carbon Costs are: 1Kg of Indoor Cannabis = 4600Kg of Carbon Output = 11 trips across the USA by Car.

Advantages of a Greenhouse: Greenhouse cultivation uses up to 90% less electricity than indoor. The latent effect of the greenhouse is an energy footprint substantially lower than indoor production.

The core advantage of greenhouse cultivation is that plants respond better to natural sunlight. Cannabis is a plant with a highly efficient photosynthetic process. It will consume as much light as is available, and convert that light into growth at 60X the speed of a Douglas Fir.

Future of Sungrown: Cannabis production has traditionally been undertaken largely indoors in North America. As much as 3% of the State of California's energy usage, for instance, is attributed to indoor Cannabis production. Understandably, it is far easier to keep black market production covert in a bunker than in a glass box. The problem with indoor cultivation at a commercial scale, however, lies in two core deficiencies:

1. The conditions of indoor operations are less than ideal for cultivating plants.
2. The cost of indoor production is not environmentally nor economically sustainable.

KEY MESSAGING:

- The BC Government congratulates Tantulas on their development and success of SunLab.
- The Province recognizes and appreciates that the production of a sustainable and eco-friendly way of cultivating cannibis will have a valued impact on the future of cannabis in BC.

ATTACHMENTS:

- Attachment A – Attendee Biography

ADM Contact: Silas Brownsey, Investment, Innovation & Technology, 250 217-1683
Prepared by: Samantha Cowden, Administrative Coordinator, Planning and Innovation

Reviewed by			
Dir:	ED:	ADM: SB	DM: FM

ATTACHMENT A – ATTENDEE BIOGRAPHY

Dan Sutton, CEO, Tantalus Labs

Dan was born and raised in Vancouver, BC, and gratuated with a Bachelor's degree in Economics from the University of Victoria. Since then he has worked in teams developing innovative technologies for a diverse range of sectors, from high field magnetics to nuclear fuel. Dan exudes enthusiasm around sustainability, technology, and the #Sungrown cannabis movement.

He founded Tantalus Labs in the summer of 2012 with a team of specialized scientists, engineers, and designers committed to the advancement of agricultural science.

He was named to the Top 40 Under 40 Rising Stars of Cannabis by Marijuana Venture Magazine in 2016.

Nominated for Innovator of the Year Award at the Canadian Cannabis Awards in 2017.

Gave a presentation on environment cost of indoor cannabis at TedX Vancouver in 2015 which is one of his prouded moments in his career to date.