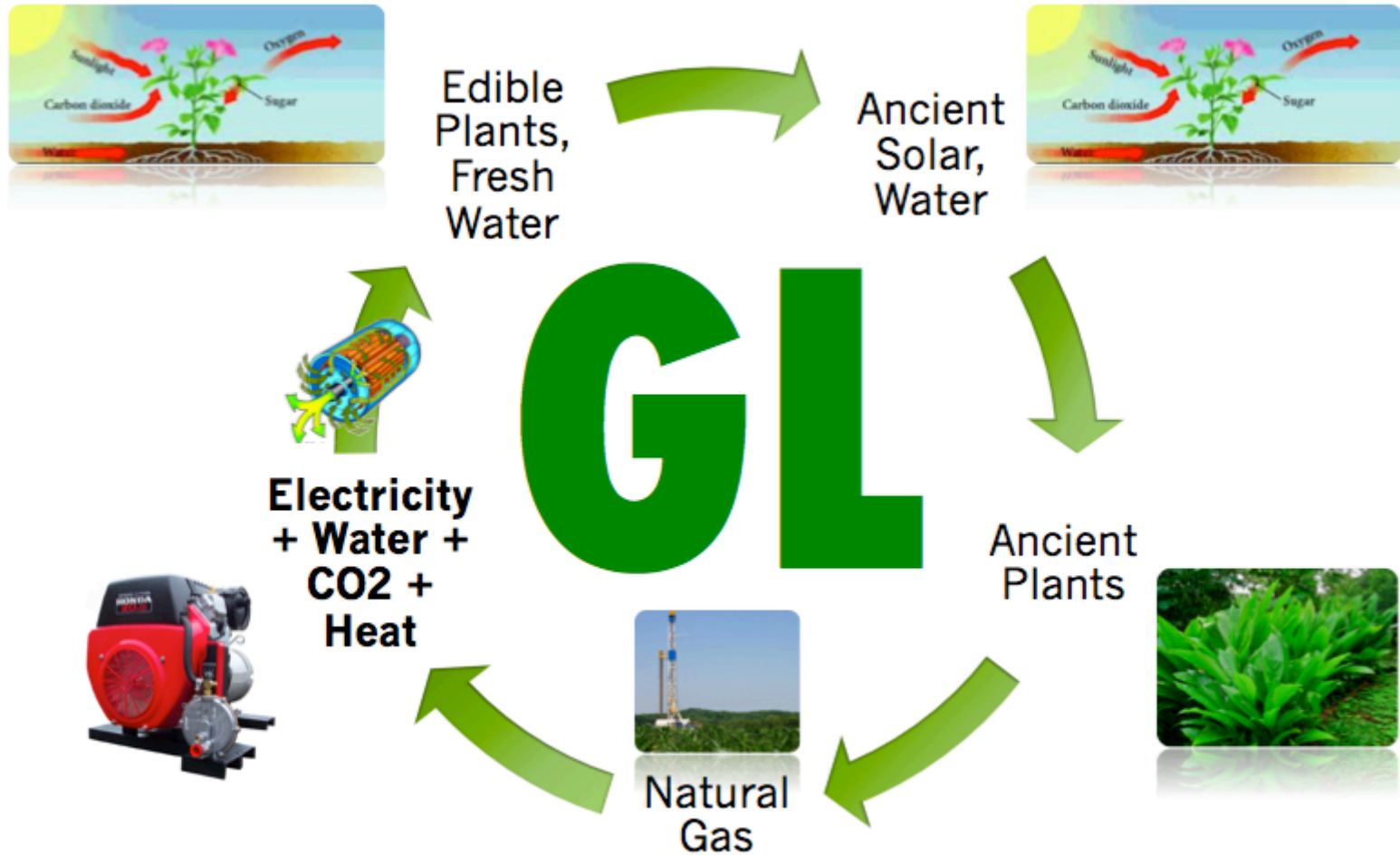


# Green Loop's "Natural Garden System"





## Green Loop is a Service Company for Greenhouses

Green Loop is a resource services provider for the greenhouse growing industry. Our proprietary “**Natural Garden**” system provides:

- Low cost electricity and heat
- CO2 enrichment to maximize crop yields.

Green Loop finances, installs and maintains the Natural Garden equipment, and purchases long term natural gas contracts.

Our Team...

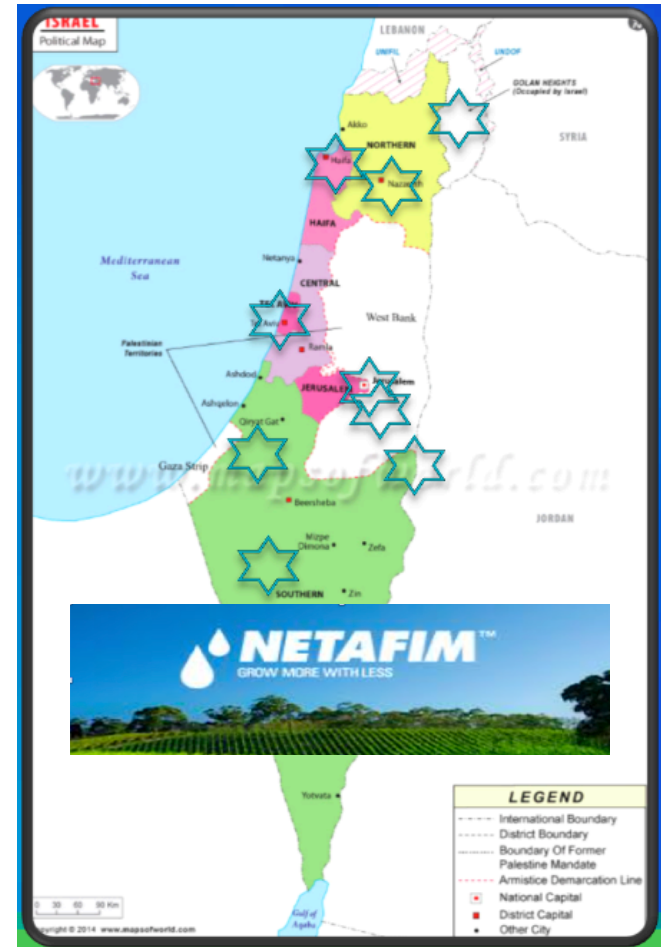
So far, we've...



## The Story of Greenloop, and the Natural Garden

- In December 2015, Tim and Divija visited **Israel** to learn about **water conservation**
- Israeli firm **Netafim** pioneered revolutionary **drip irrigation technology**, combining water and nutrients
  - *However, 97% of Israel's energy mix from natural gas and oil*
- Tim's work in microgrids
- Chris's work on home food growing
- Divija's family orchard business

Can the approaches that **solved water** in the desert help **solve energy** as well?

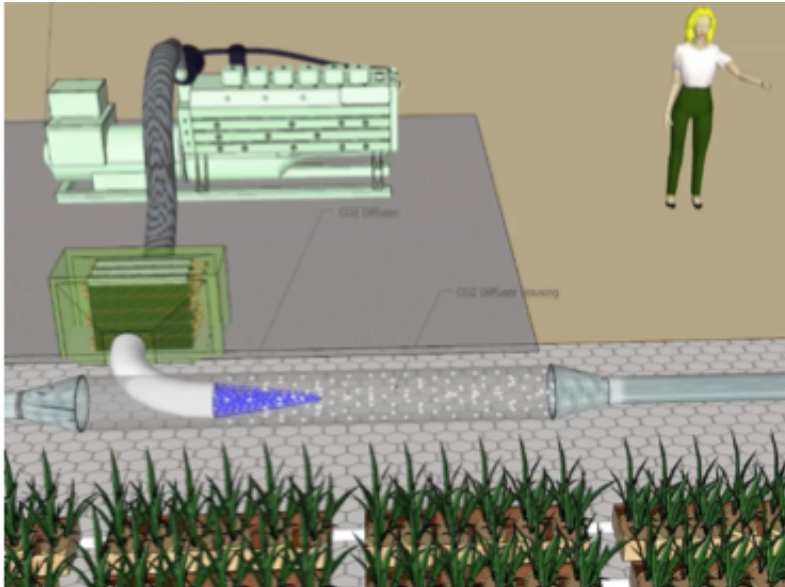
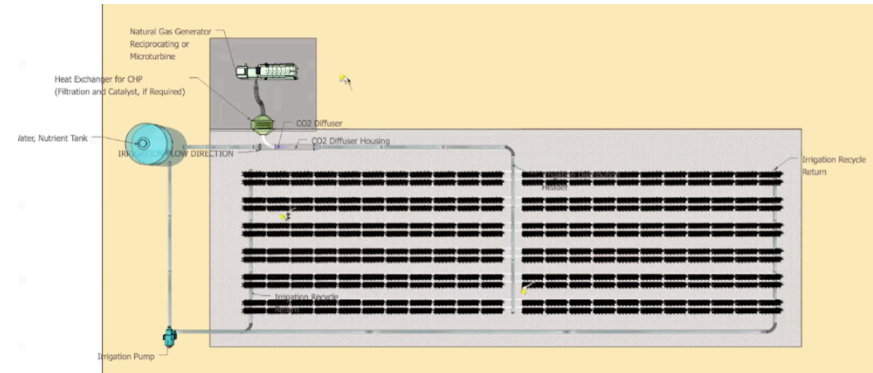




## Pain/Unmet Need

- Increase in food production using greenhouses
- Fruit crops, flowers and green are grown more and more in greenhouses
- Pain: environmental factors of water and energy scarcity
- Fulfill need by providing an alternate to this
- Pain: Not many people have funds to use expensive solar or gas
- Easier to have a company that does it all

# Green Loop's "Natural Garden" Solution



- **Power, Heat + CO2** by self generation
- Leverage modern natural gas generators, which emit what plants need: CO2, heat and water
- Leverage recirculating irrigation systems for **minimal additional infrastructure**
- Makes **CO2 enrichment cheap and easy** for greater crop yields



# Natural Garden Technology



## Drip Irrigation + CO2 Injection

- **Natural gas generator**
  - Natural gas in, CO<sub>2</sub>, water vapor, heat and power out
- **Exhaust heat exchanger for combined heat & power (CHP)**
  - Filtration as needed
- **Proprietary CO<sub>2</sub> injection into irrigation stream**
  - Provides CO<sub>2</sub> directly to plants, with minimal or no additional distribution infrastructure



# Business Model

## Combined Carbon, Heat, and Power as a Service (CCHPaaS)

Commercial Prices	
Electricity	\$ 0.17 /kWh
Natural gas	\$ 0.63 /therm
CO2	\$ 0.090 /lb
<b>Total (70kW)</b>	<b>\$5,449 /month</b>

### Customer Pays:

- One-time fee = 1yr savings
- Monthly rate at 33% savings

(Potential Ag subsidies may lower costs further)

Green Loop Prices	
Electricity	\$ 0.12 /kWh
Natural gas	\$ 0.50 /therm
CO2	\$ 0.045 /lb
<b>Total (70kW)</b>	<b>\$3,626 /month</b>

**\$3,626 /month = 33% Savings**

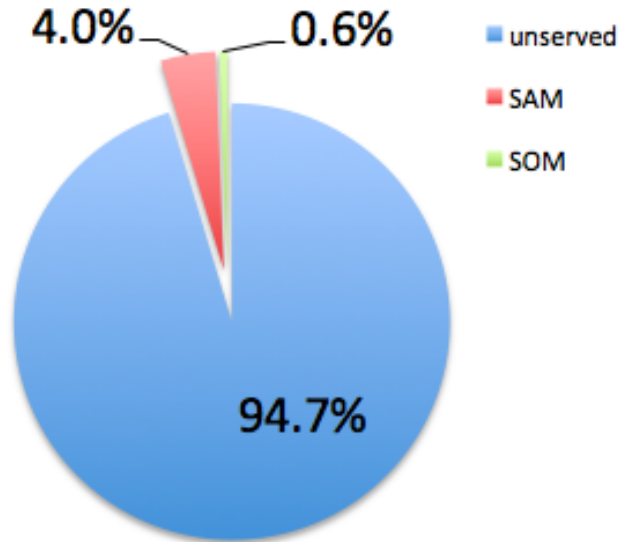
### Green Loop Pays:

- Generator & equip. financing
- Installation
- Natural gas



# Addressable Greenhouse Growing Market

## Food, Horticulture Market Fruiting, Flowering



**TAM:** US fruiting, flowering greenhouse growers = 28,140 growers

**SAM:** Growers with revenue > \$2.5M/yr

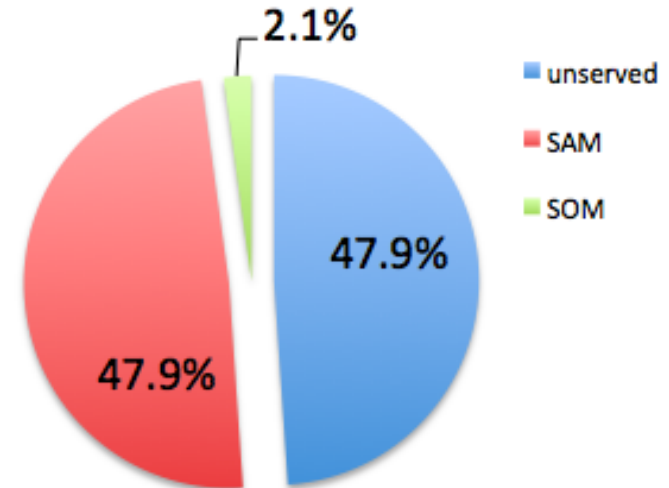
**SOM:** Required customers for target growth

**TAM:** Cannabis growers in largest State markets = 8,064 growers

**SAM:** 50% - median = power use

**SOM:** Required customers for target growth

## Cannabis Market CA CO MI WA AZ







## The Green Loop Value Proposition

- Low and consistent pricing – no peaks charges or time of use
  - Reliability of independent power production w/o staff
  - CO2 production = Higher crop yields, lower emissions, no need to source (grower marketing advantage)
  - CO2 distribution with minimal or no infrastructure costs to grower low cost of entry for growers - capital
  - Carbon footprint? Electricity - out of sight, out of mind?
- 
- Power suppliers - we find customers
  - Materials providers - volume



## The Competition

- GE system and Houweling's only one in North America, large size - scale down?
- Netherlands – have technology, but low demand due to low cost of electricity relative to natural gas





## Green Loop's Competitive Advantage

\*Cheaper power \* Homemade CO2 \* Homemade Heat\*

- Founder experience in power systems
- IP in CO2 distribution technology
- Hassle-free power and CO2 systems for growers
- Harness heat
- Comprehensive System
- Distill energy and complex interactions for growers
- Build the relationship

\*\*CanopySD networking in cannabis industry



## Risks

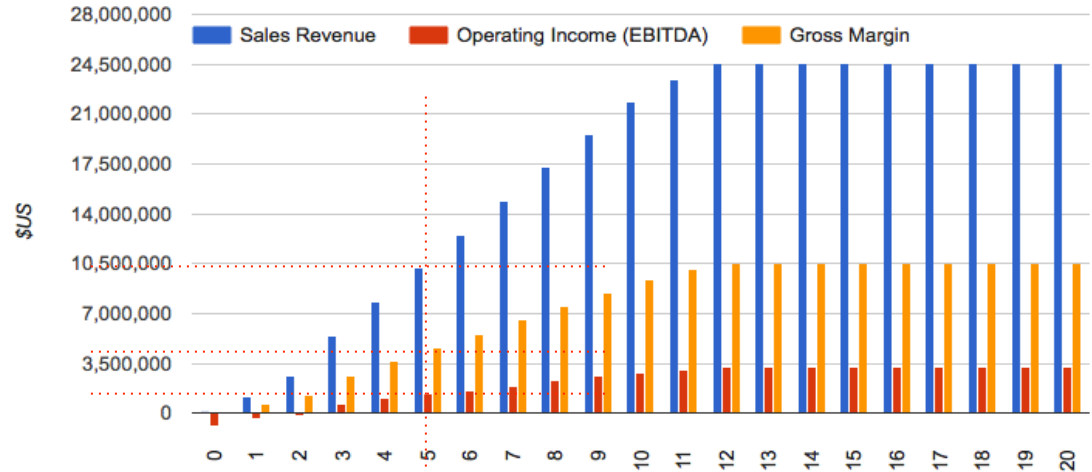
- **Commercial** - \*New entrants, \*Delivery
  - Partner with big names (CAT, etc.)
  - Demonstrate success
- **Technical** - complex system, balancing equation, steady service
  - Baby steps / mentorship
  - Study life sized prototype
  - Technical background!
- **Market** - plant sector, many suppliers
  - Market research; familiarization
  - Unique relationships
- **Regulatory** - horizon, incentives
  - Cannabis growth
  - \*Local incentives and credits (RECs, SGIP, RPS)
- **Financial** - \*Capital, \*O&M
  - Due diligence/negotiate
  - Logistics Plan / attractive salaries



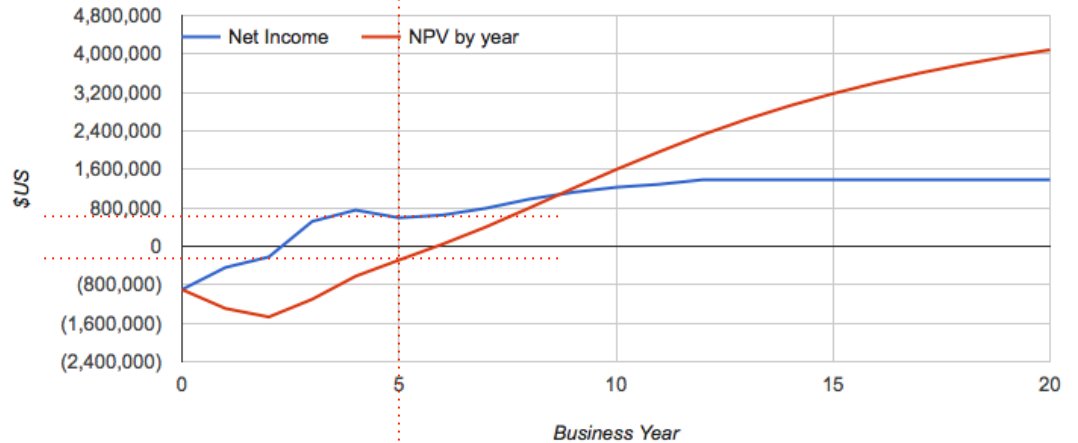
# Green Loop Financials

<b>Hurdle rate</b>	<b>12.00%</b>
<b>NPV (20yr)</b>	<b>\$3,650,537</b>
<b>IRR (20yr)</b>	<b>32%</b>

**Green Loop Financial Performance**



**Net Income and NPV by year (12% Hurdle Rate Assumed)**





# Business Financing and Exit Strategy

Initial seed round investment from greenhouse grower and cannabis accelerator, for low cost demonstration project

A-Round investment of **\$1.6M** after demo

## ESOP Exit Strategy:

- Seed and A round investors in year 4
- Founders in year 10

	Seed	A Round	Founders	Staff Options
Investment	\$36k	\$1.6M	\$257k (pre-money value)	-
% Ownership	9%	30%	51%	10%
Exit Year	4	4	10	10
Return Rate /Payout	132% \$1.35M	30% \$4.5M	- \$12.5M	- \$2.5M



## Summary & Conclusion

- Growers need to increase efficiency and lower costs to remain competitive
- Cannabis is growing
- Ride the green wave
- Other countries are leading the way in efficiency and yields
- Smart growing gaining in popularity
- Pitch to D&E

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# SUPPLEMENTAL



# Sensitivity Analysis

		Lending Rate		Natural Gas Price		CO2 Price		Elect. Costs	
	Base Case	=3%	=7%	-10%	+10%	-10%	+10%	-10%	+10%
IRR	32%	36%	28%	39%	24%	30%	35%	27%	38%
NPV (US\$M)	\$3.651	\$4.527	\$2.725	\$5.341	\$1.760	\$3.300	\$4.001	\$2.881	\$4.420
seed round investor return	131%	142%	120%	149%	110%	123%	141%	111%	151%
A round investor return	30%	36%	24%	40%	18%	25%	36%	19%	41%
founder return (US \$M)	\$4.175	\$4.895	\$3.413	\$5.637	\$2.548	\$4.006	\$4.344	\$3.804	\$4.545