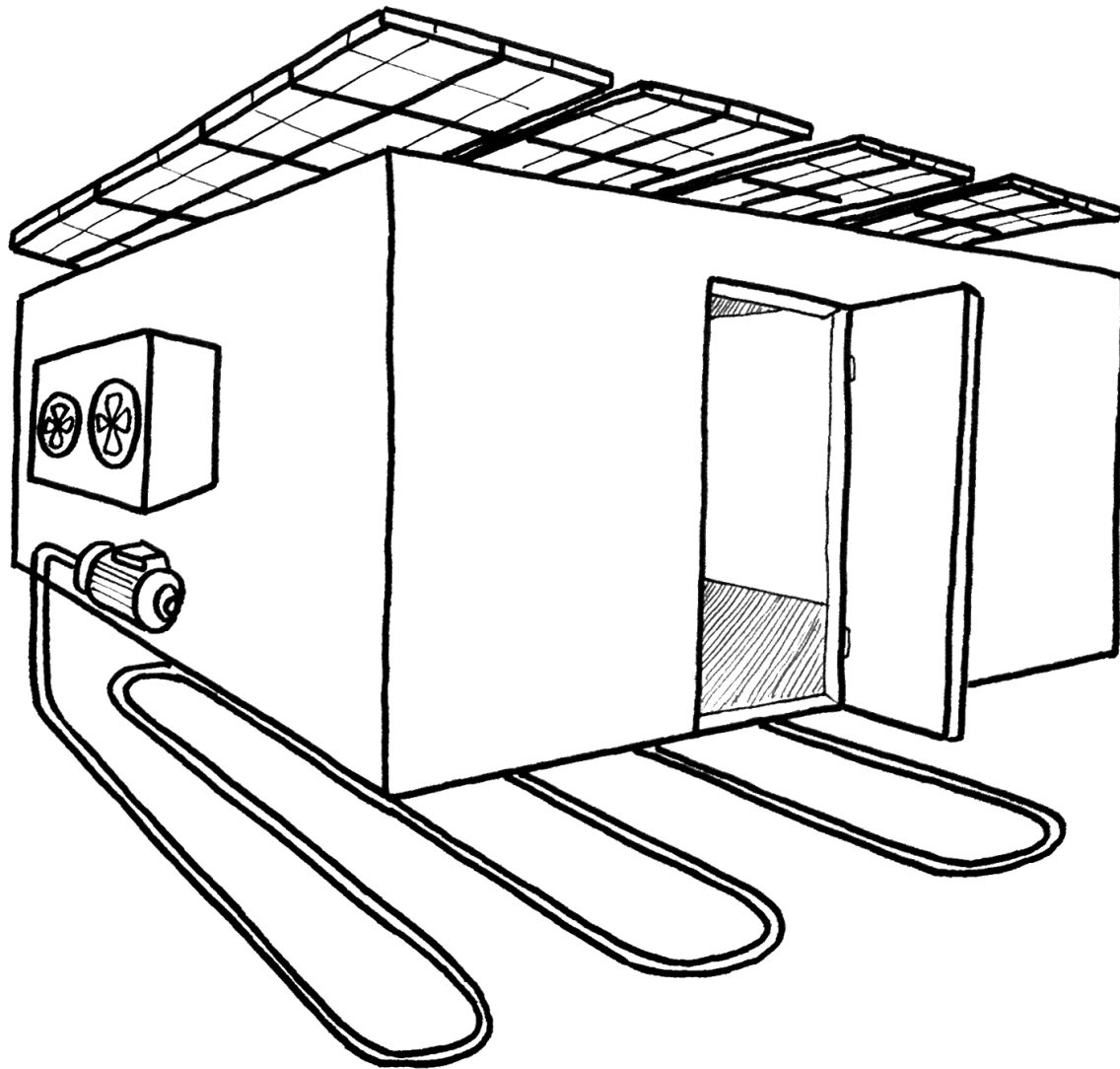


**Pink A**

# Pink A CoolKeep

Erik Klatt



Product ♦ Users ♦ Product Contract ♦ Key Findings ♦ Next Steps

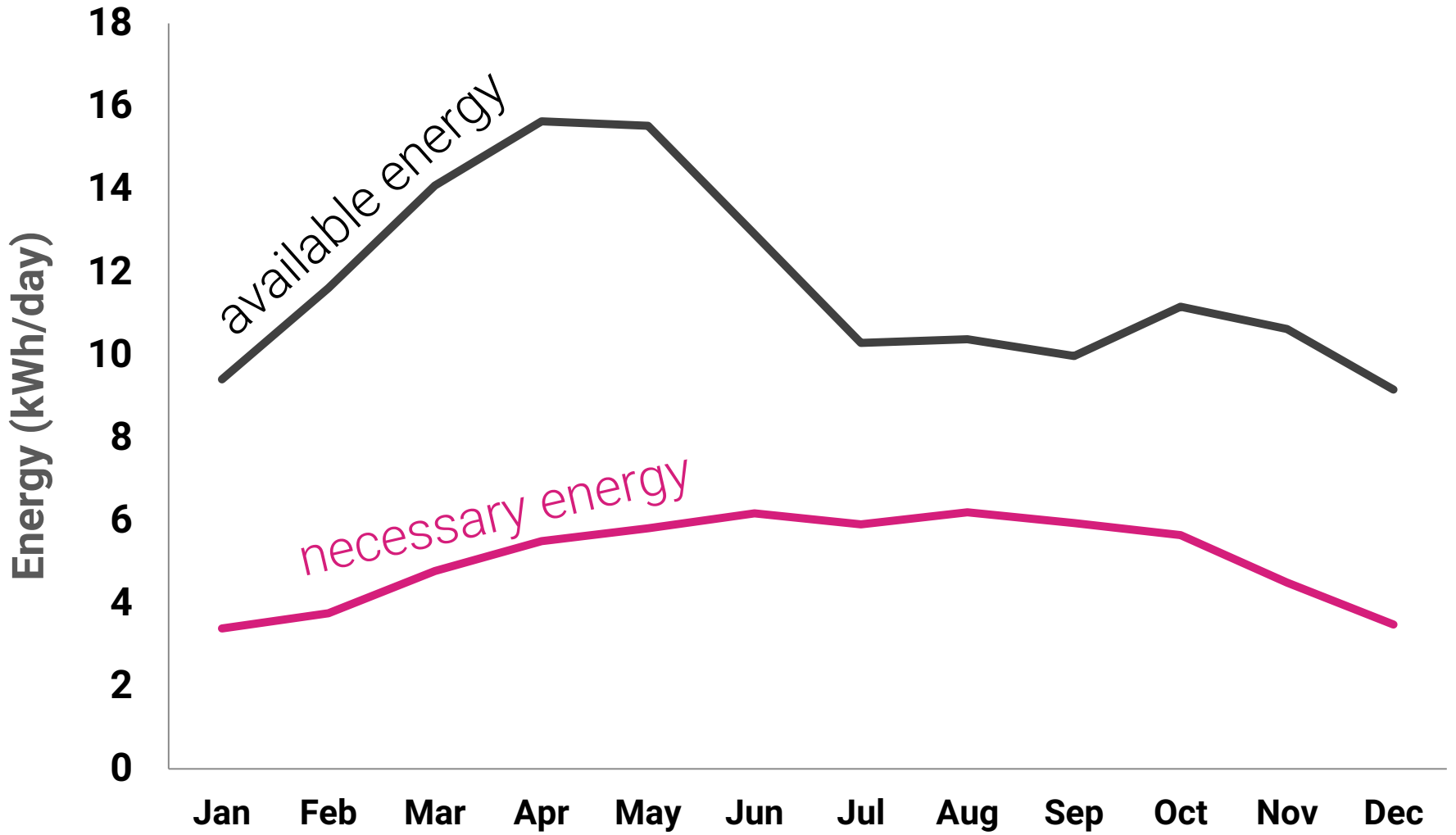


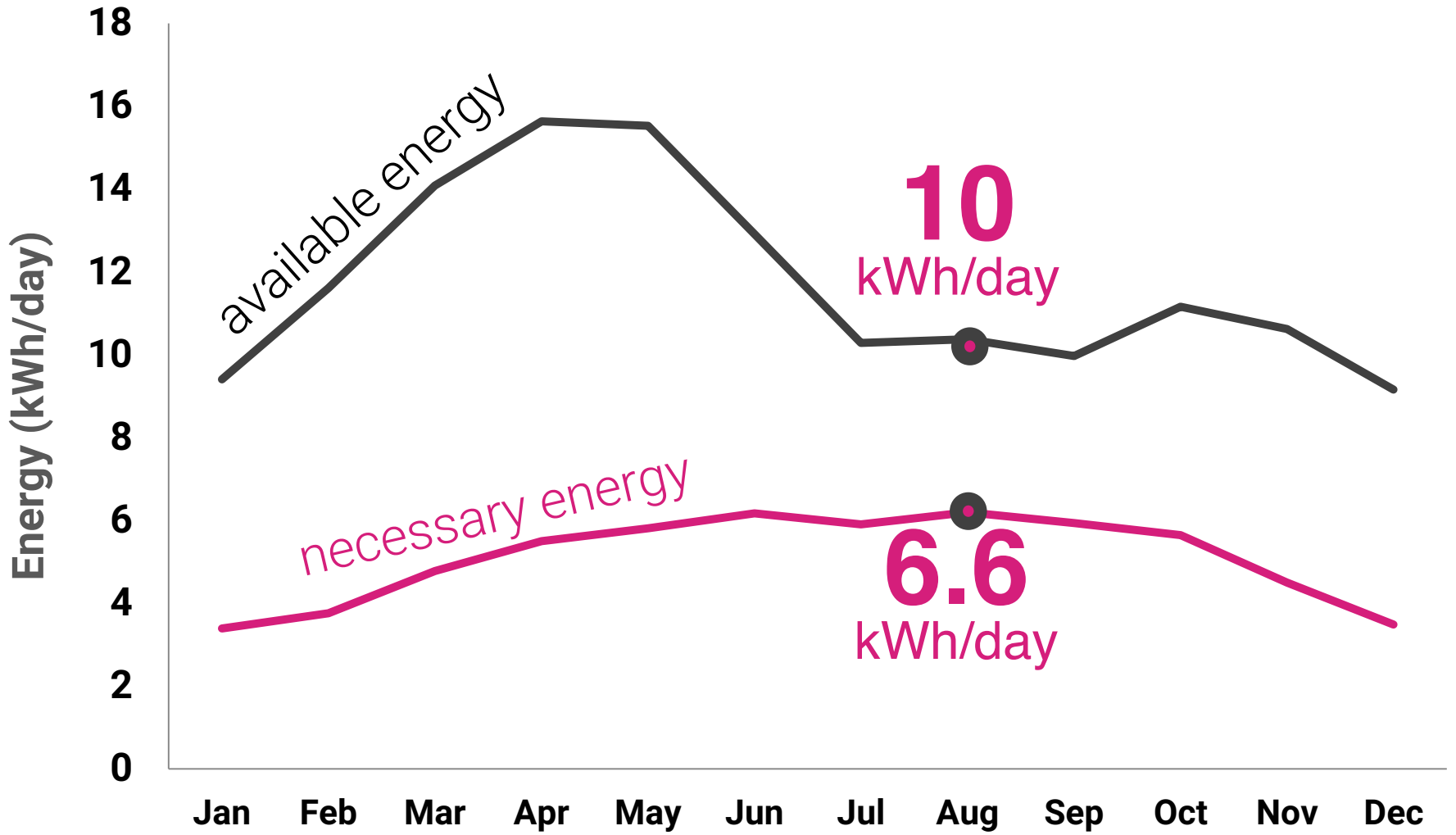
Customer Need	Product Attribute	Engineering Specification
Store a week of harvest	Volume	40 cubic meters
Maintain cooling with intermittent power	Insulation, thermal storage, power supply and generation	Supply 10 kWh per day
Affordable	Simplicity, Efficiency	Repayable within 2 years

can we **simulate** how CoolKeep will respond to variations in weather?

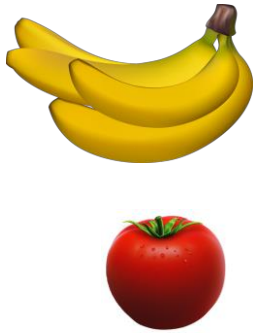
can we design an **appropriate user interface** with climate control?

how can we capitalize on **cost-efficient** technologies?

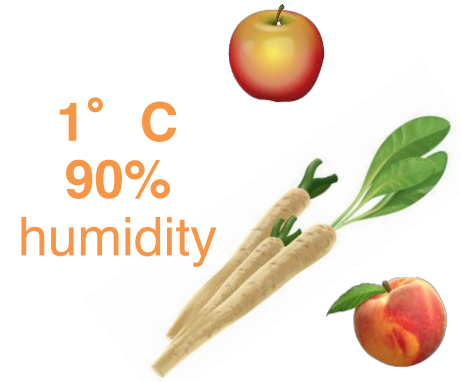




1° C  
70%  
humidity



14° C  
90%  
humidity

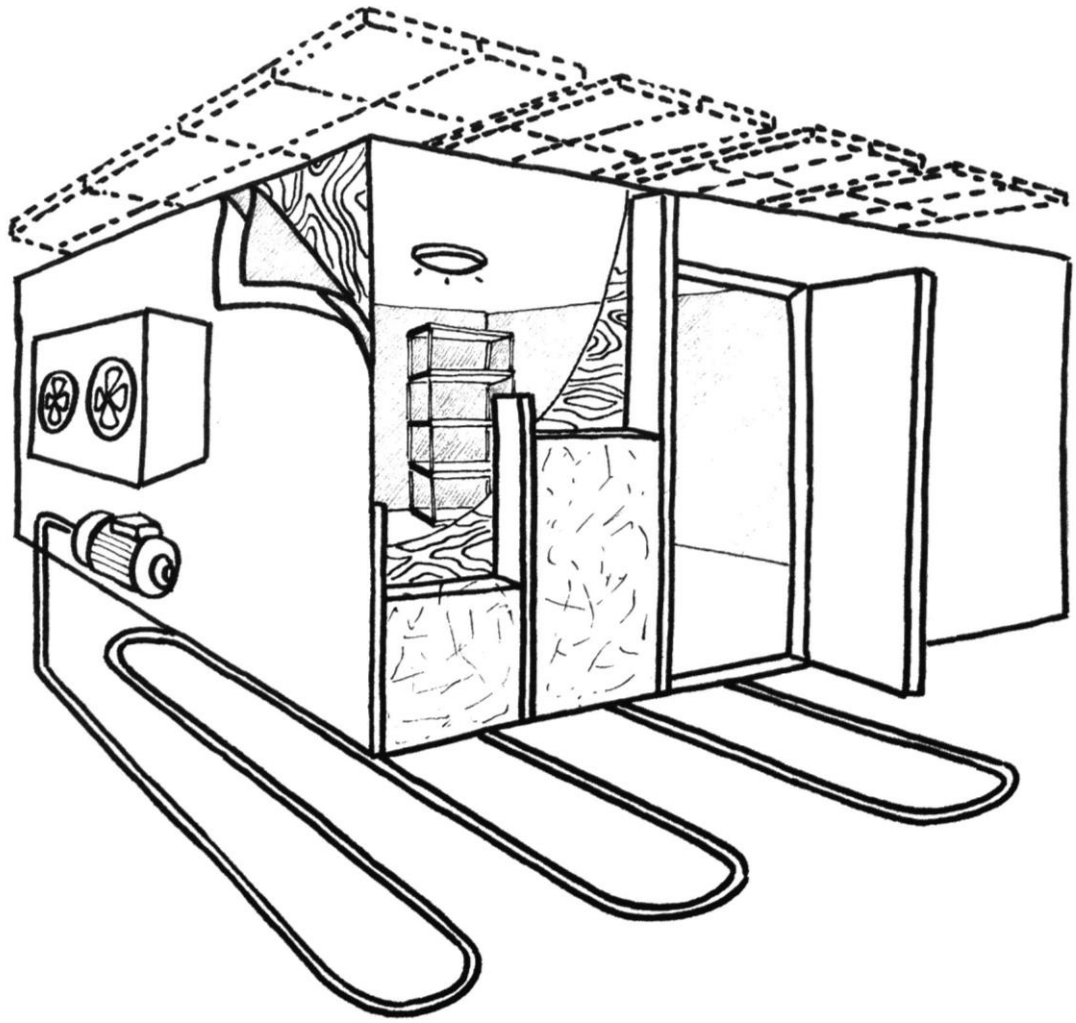


1° C  
90%  
humidity



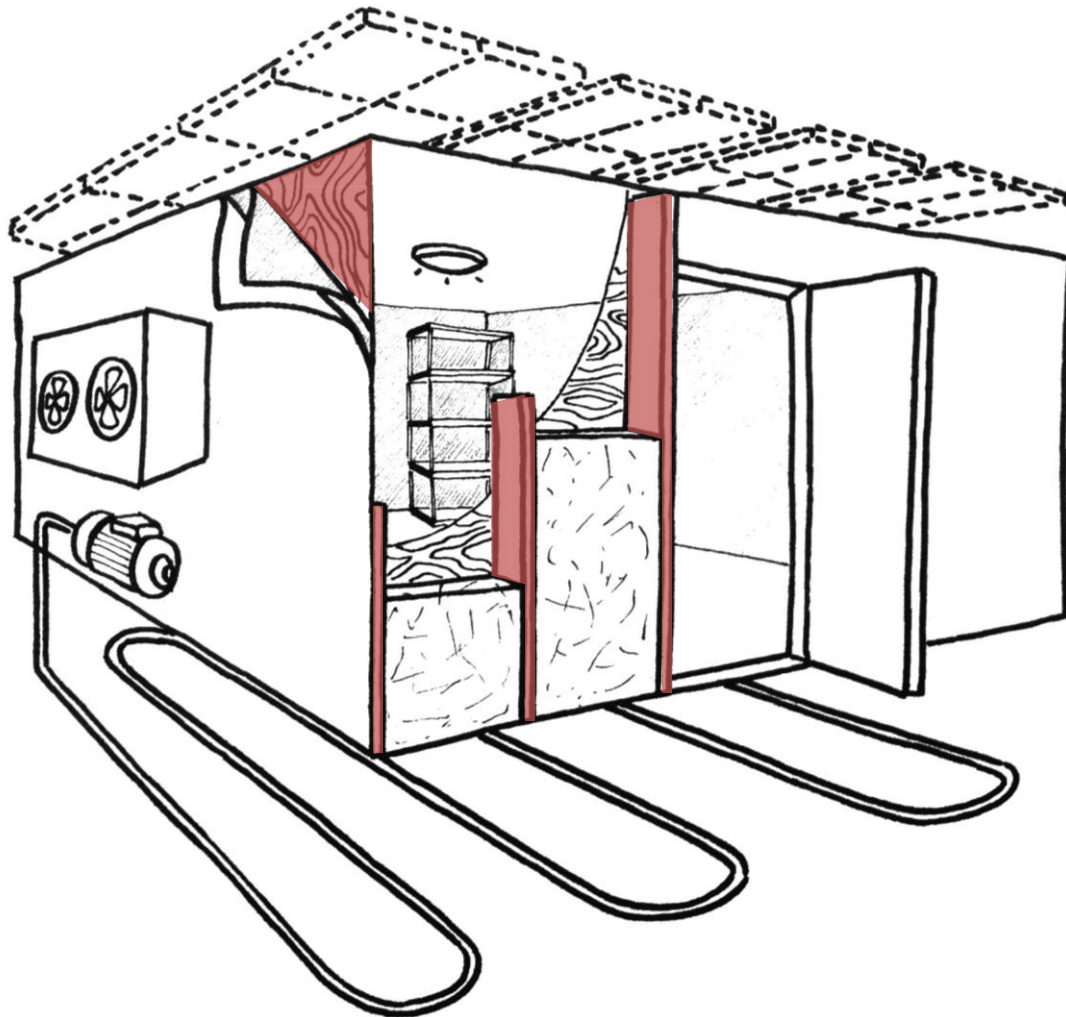
10° C  
90%  
humidity





Structural \$575 – 1129

plywood  
Beams

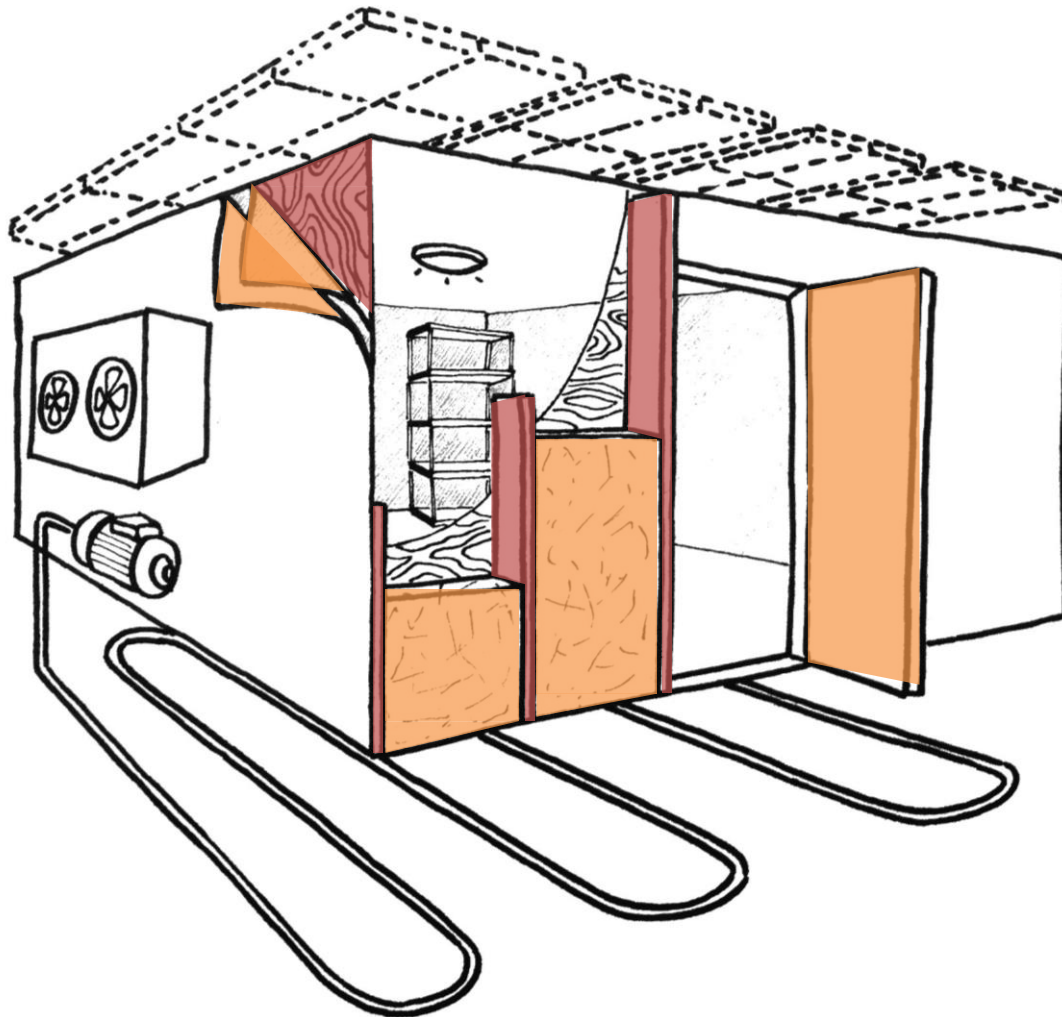


Structural \$575 – 1129

plywood  
Beams

Insulation \$478 - 686

Fiberglass  
mylar  
Tyvek  
door



Structural \$575 – 1129

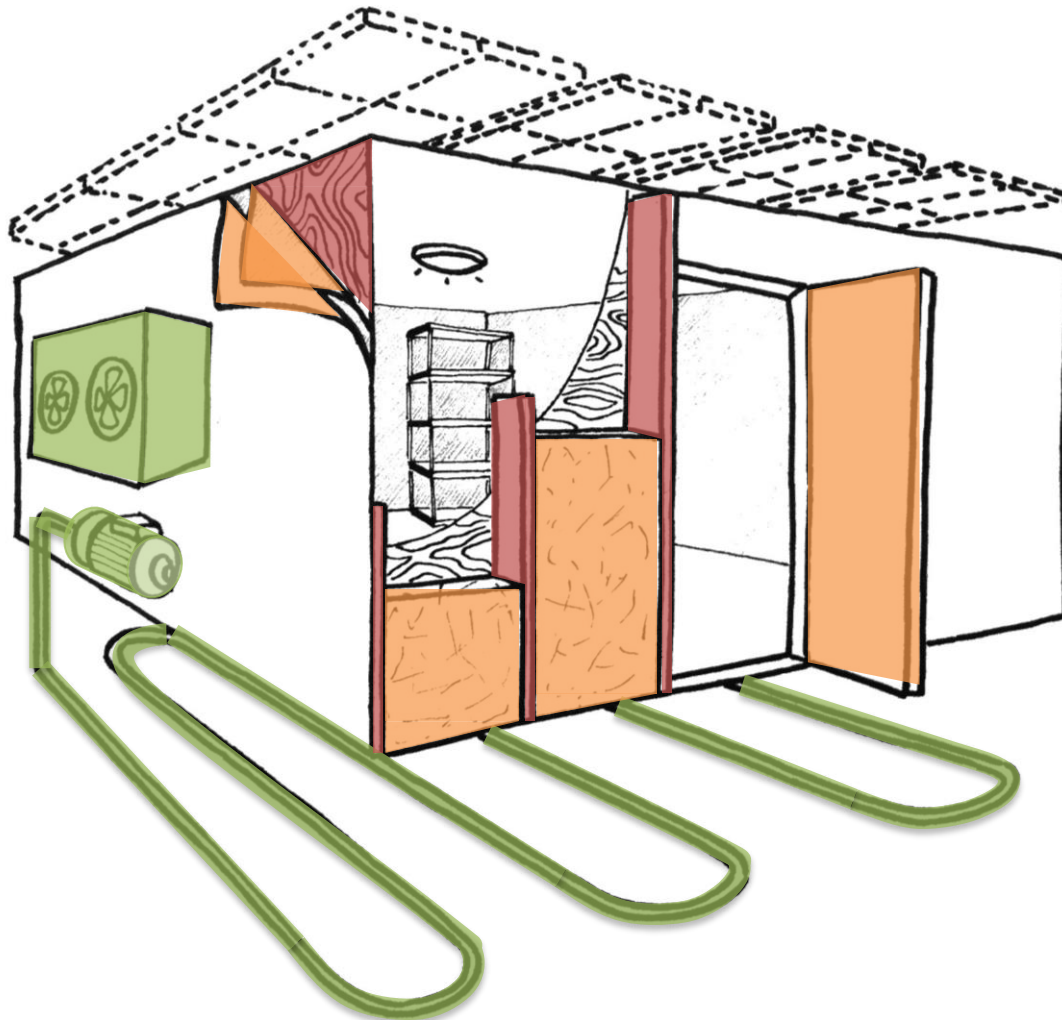
plywood  
Beams

Insulation \$478 - 686

Fiberglass  
mylar  
Tyvek  
door

Heat Transfer \$415 - 725

battery  
pump  
copper pipe  
AC



Structural \$575 – 1129

plywood  
Beams

Insulation \$478 - 686

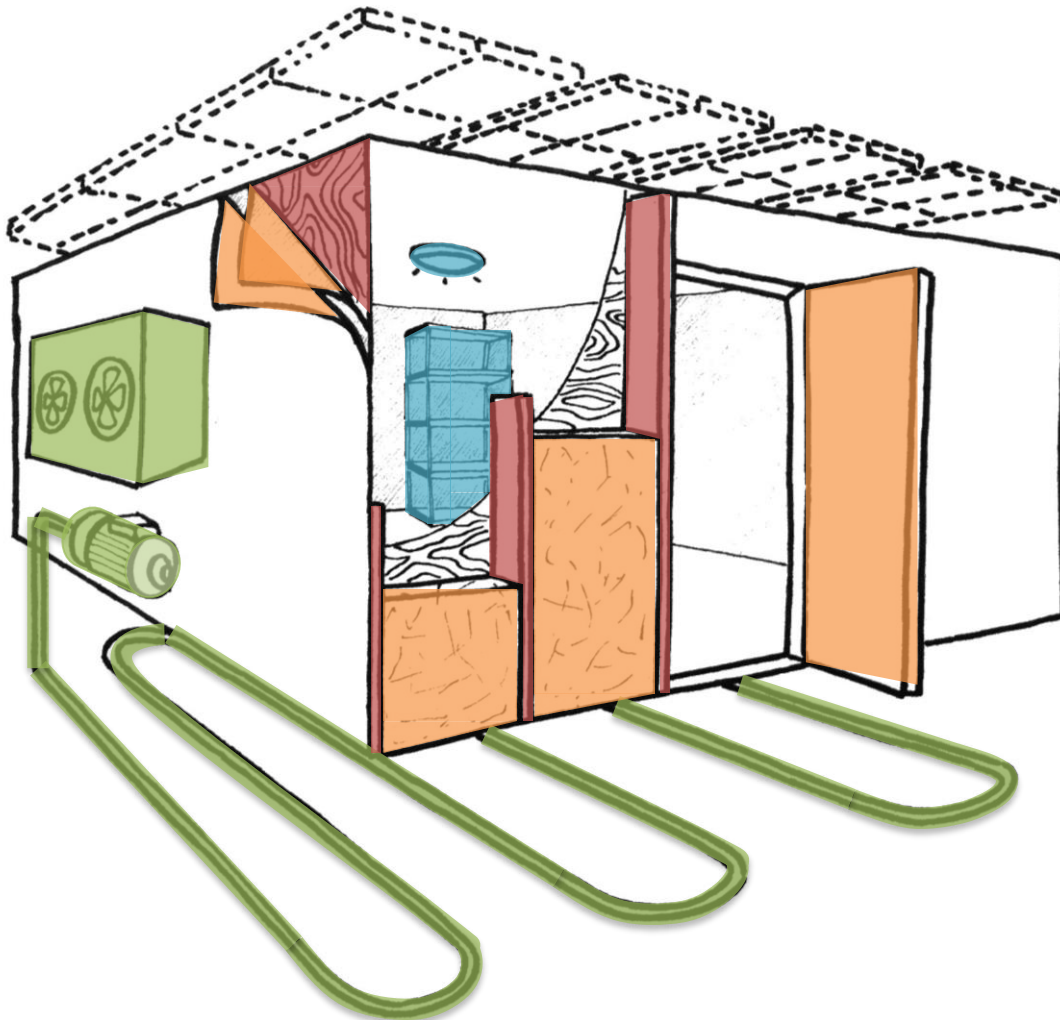
Fiberglass  
mylar  
Tyvek  
door

Heat Transfer \$415 - 725

battery  
pump  
copper pipe  
AC

Interior \$536 – 560

shelving  
lighting



Structural \$575 – 1129

plywood  
Beams

Insulation \$478 - 686

Fiberglass  
mylar  
Tyvek  
door

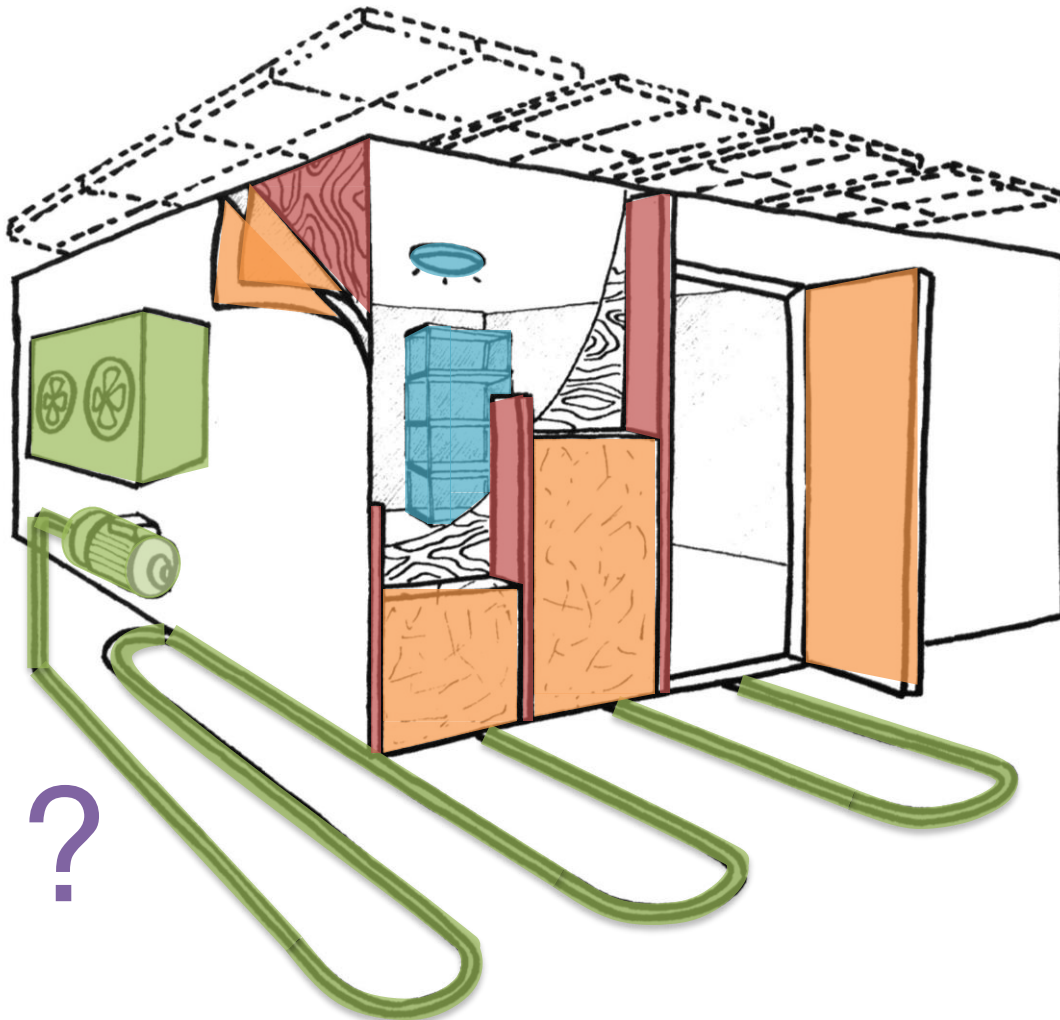
Heat Transfer \$415 - 725

battery  
pump  
copper pipe  
AC

Interior \$536 – 560

shelving  
lighting

Miscellaneous \$500



Structural \$575 – 1129

plywood  
Beams

Insulation \$478 - 686

Fiberglass  
mylar  
Tyvek  
door

Heat Transfer \$415 - 725

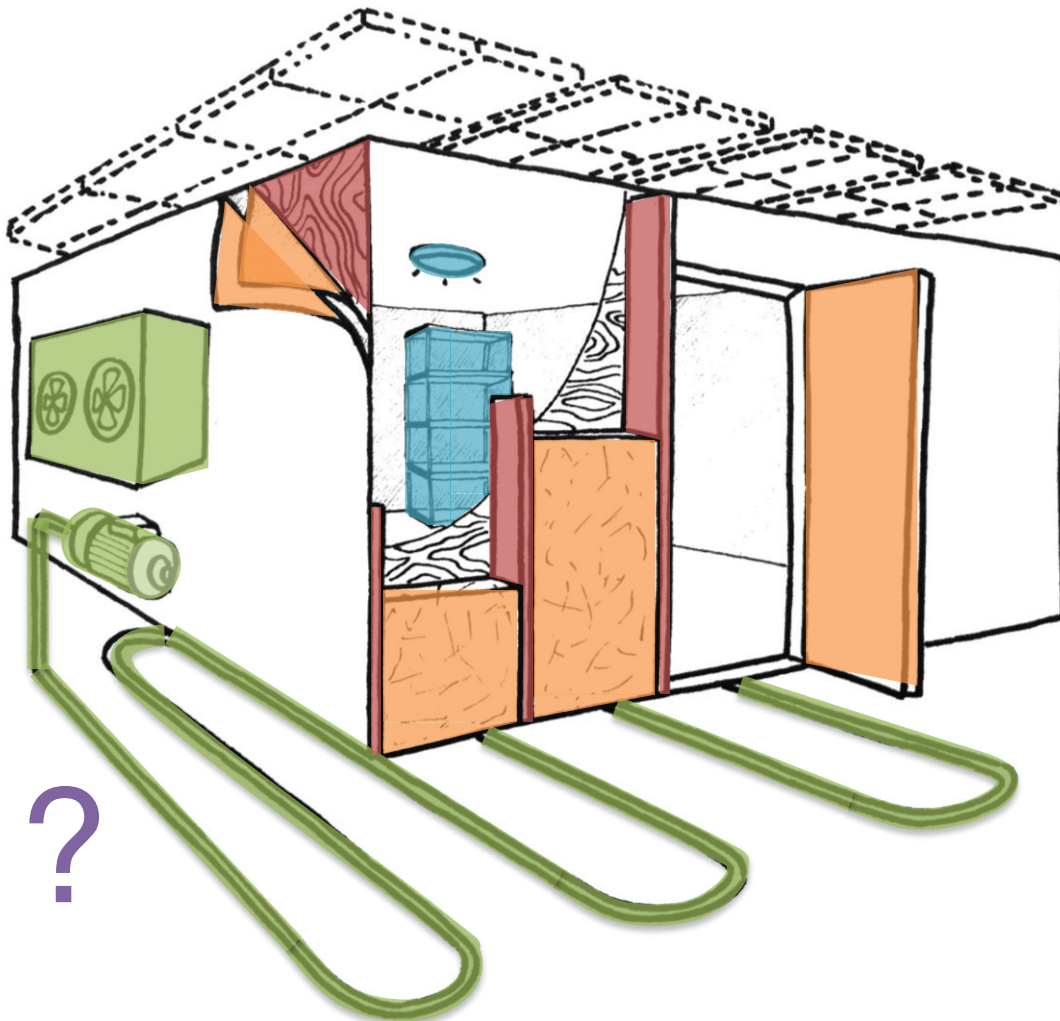
battery  
pump  
copper pipe  
AC

Interior \$536 – 560

shelving  
lighting

Miscellaneous \$500

**TOTAL \$2504 - 3600**



- ✓ Develop adequate insulation
- ✓ Finalize cooling process
- ✓ Regulate power output from multiple sources