

# Entrepreneurship



*Chena Hot Spring Resort Spa*

## CONCEPTS

### 1. PROBLEM

Energy cost (both electricity and heating) to maintain Chena Hot Spring Resort high., especially for a key attraction the "Ice Hotel".

### 2. SOLUTION

Build low cost geothermal generators that can utilize the abundant natural energy produced by hot springs.

### 3. CUSTOMER

Places that have naturally accruing hot springs and a need for low cost energy.

### 4. ITERATION

Expand the operation to provide power to surrounding areas and export technology to other areas that can use low cost geothermal generators.

## Forbes' "Dumbest Business Idea of the Year" recipient named Business Leader of the Year

To many, building a hotel that would melt in a few months seemed like a poor business decision, to Forbes magazine it was the "Dumbest Business Idea of the Year". Visionary Bernie Karl, an audacious entrepreneur engineered profitability into longtime money losing Alaskan resort --Chena Hot Springs. For Bernie Karl, it was a chance to utilize surrounding assists to encourage visitors to Alaska's interior, so in 2004 he built his Aurora Ice Hotel. Notoriety and ridicule soon followed as the hotel began to thaw that spring. Even as Bernie Karl's dream was melting, he saw opportunity in adversity "I took a frozen asset and turned it into a liquid asset." as he proceeded to sell thousands of vessels with an attached story of the melted ice castle for \$4.95.

The next year Bernie Karl took the proceeds and designed an ice hotel that would not melt, he had installed a refrigeration system that would keep the hotel frozen all year around. The problem was cost, a hotel with an average \$750 a day energy appetite. Considering there were only six rooms, a bar and a lobby this hotel did not seem to be an economically viable enterprise. To add to Mr. Karl's woes the fire department refused to certify the hotel for occupancy for lack of a working sprinkler system that could not be installed in the rooms with a 24 F ambient temperature. The castle was however able to secure a liquor license that serves exotic frozen drinks, and it currently employs world renown ice sculpturers whose statues are meticulously displayed.

As a true entrepreneur Bernie Karl persevered. Not since 1867, with Secretary Seward's "folly" of the purchase of Alaska from the Russians has there been such a short sighted press commentary about an Alaskan venture. Entrepreneurs often see opportunity, where others see failure; in Mr. Karl's

case he used a lofty vision of building the Aurora Ice Hotel to attract tourists and eventually turned it into profitable venture; an energy self-sufficient resort capable of supporting year around green house gardens, hot springs, radiant heated cabins and free geothermal generated electricity, enough to necessitate an ice castle and its surrounding village. After spending \$2.4 million developing his geothermal plants Mr. Karl is recouping his costs by powering a nearby military bases that are currently dependent on diesel generations. His group is also planning on licensing these small scale geothermal plants to other communities for about \$500,000 each, a fraction of comparable systems. Every year the resort hosts many conferences including an alternative energy conference in August attended by scientists, engineers, policy makers and enthusiast from around the world.

Still Mr. Karl is not resting on his laurels; recently his resort purchased disregarded military snow transport crawlers to move people around in the winter. As it turns out plane loads of Japanese tourist now come to this remote resort to watch the spectacular Aurora light shows from the hot springs. For in Japanese culture these are ideal conditions in which to procreate.



*Chena Resort Geothermal Generator*



## Photos



**Resort Ice Hotel**



**Geothermal Generators**



**Ice Hotel Bar**



**Geothermal Heated Greenhouse**



**Hotel Room with Frozen Water Bed**



**Surplus Military Transport**

## ENTREPRENEURSHIP AND TECHNOLOGY

Centerpreneurship focuses on engineering research science into practical applications that can be commercialized. The center does this through classroom instruction, research seminars and laboratory incubation of startups.

### CASE

Chena Hot Springs (2010)

### IEOR 190C Bernt Wahl

Industry Fellow  
College of Engineering  
[www.berkeley.name](http://www.berkeley.name)

### Contributors

Chena Hot Springs Resort

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### Subscription

[berkeley@gmail.com](mailto:berkeley@gmail.com)

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P.O. Box 13991  
Berkeley, CA 94712  
(510) 647-9206