Inventions and Commercialization

Ken Dulaney
Director of Industry and Innovation

February 20, 2023
American-Made Challenges

Solar Prize Round 6

The Solar Prize Round 6 offers $4.1 million in cash prizes to competitors over three progressive contests.

<table>
<thead>
<tr>
<th>Stage: Enter</th>
<th>Prize: $4,100,000</th>
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</table>

Energy, Environment & Resources
Government
Technology
Inventions

• Every invention is not a patent.
• Every patent is not a startup.
• Every athlete is not an Olympian.
Patents

- 1 year from public disclosure
- Provisional patent offers idea protection for one year
- Utility filing likely to be rejected the first time
- Patent is issued 2-3 years later
Founders

Department of the Secretary

To all whom presents shall come in the state of North Carolina - a true copy of

The Department of the Treasury
IRS
DEPARTMENT OF THE TREASURY
INTERNAL REVENUE SERVICE
CINCINNATI, OH 45202-0023

NORTH CAROLIN

NC Solar Inverters, LLC

Business Plan

January 6, 2022

This Mutual Nondisclosure Agreement (this “Agreement”) is effective as of [insert date] by and between NC Solar Inverters, LLC, a [insert full legal name of counterparty], and [insert full legal name of counterparty]. This Agreement is on which our firm will provide legal services to liability company or resident.

1. Purpose. The purpose of the parties entering into a business relationship is to provide legal services to liability company or resident.

2. Confidential Information.
• Legal Services
• On campus office space
• Marketing and Design
  – Web content
  – Logo
  – Video
Business Plan

• Who is going to write the check to buy our solution?
• Are we solving the right problem?
• Why does our industry tolerate the problem that we aim to solve?
• How will we sell our product or service?
## Business Model Canvas

<table>
<thead>
<tr>
<th>Key Partners</th>
<th>Key Activities</th>
<th>Value Proposition</th>
<th>Customer Relationships</th>
<th>Customer Segments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract Mfg</td>
<td>Performance</td>
<td>Lower Maintenance Costs</td>
<td>Channels</td>
<td>EPC</td>
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<tr>
<td>Device Suppliers</td>
<td>Documentation</td>
<td>Higher kWh</td>
<td>Distributors</td>
<td>Commercial Installers</td>
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<tr>
<td></td>
<td>Key Resources</td>
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<tr>
<td></td>
<td>IP</td>
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<tr>
<td><strong>Costs</strong></td>
<td></td>
<td></td>
<td><strong>Revenue</strong></td>
<td></td>
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<tr>
<td>Testing</td>
<td></td>
<td></td>
<td>Product sales</td>
<td></td>
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<td></td>
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<td>Pricing: 10% under competition</td>
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</tbody>
</table>
Customer Discovery

- List out your assumptions so they can be tested
- Is this really a problem and who cares?
- What's the value of solving this problem?
- “Nobody wants to hear their baby is ugly.”
Customer Discovery

“If I had an hour

to solve a problem

I'd spend

55 minutes

thinking about

the problem

and 5 minutes

thinking about

solutions.”

– Albert Einstein
Funding Plan

- Federal grants: SBIR, STTR
- Startup Incubators and Accelerators
- Chancellor Innovation Fund
- State Grants
- Funding Consultants
- Bootstrap
- Investors: Corporate, Venture Capitalists
Product Development

- Prototypes
- Testing
- Certifications
Extreme Fast Charger

- List of IP to license
- Portion of project funding includes total cost of ownership which involves calling end users
- Help from an experienced entrepreneur
- Use our network: Schneider, Duke Energy
Lessons Learned

• You can’t do it all by yourself. Get help.
• Network is key.
• Fall in love with the customer; not your solution.
• Plan and prepare but pivot if necessary.
Conclusion

You miss 100% of the shots you don’t take.
- Wayne Gretzky

I skate to where the puck is going to be, not where it has been.
- Wayne Gretzky