Attracting Investors for CEA

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ICCEA Panama
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Agenda

- Introduction
- NanoH2O Story
- CEA Parallels and Observations
- Conclusion
- Q&A
INTRODUCTION
Introduction to Rusheen Capital Partners, LLC

- Rusheen Capital Partners, LLC (“RCP”) manages commercialization of assets / technologies for private equity, corporate and university partners:
  - Evaluating opportunities
  - Raising and investing capital
  - Hiring management

- RCP principals have founded / managed 9 de novo companies, 2 corporate spin-outs, 1 university spin-out, 15 private equity investments

- RCP and its affiliates have sourced, raised and invested over US$2 billion in energy companies and projects around the world

- RCP is managing partner of US Renewables Group ([www.usrengroup.com](http://www.usrengroup.com)), large US-based clean energy private equity firm (US$1billion AUM)
Recent Example

- Over a 60-day period RCP and a multi-national power utility:
  - Scanned 500 concepts and settled on 28 for detailed review
  - Held a 3-day workshop which identified 7 concepts “of interest”
- Identified concepts complementary to core business that would most likely not otherwise be developed
  - Opportunities differentiated by market, technology, geography, etc.
- Next step: develop formal game plan for 7 “finalists”
Rusheen Capital Partners Team

- **Jim McDermott – Chairman, Rusheen Capital Partners, LLC**
  - US Renewables Group ([www.usregroup.com](http://www.usregroup.com)) - Founder & Managing Partner
  - SET Technology ([www.set-technology.com](http://www.set-technology.com)) – Chairman
  - NanoH2O ([www.nanoh2o.com](http://www.nanoh2o.com) – sold to LG Chemical) – Founder, Seed Investor & Board Member
  - Solar Reserve ([www.solar-reserve.com](http://www.solar-reserve.com)) – Founder, Seed Investor & Board Member
  - Stamps.com ([www.stamps.com](http://www.stamps.com) – NASDAQ:STMP) – Founder

- **Jeff Green – Managing Director, Rusheen Capital Partners, LLC**
  - NanoH2O ([www.nanoh2o.com](http://www.nanoh2o.com) – sold to LG Chemical) – Founder, CEO & Board Chairman
  - Archive, Inc. ([www.archive.com](http://www.archive.com) – sold to Cyclone Commerce) – Founder & SVP Marketing

- **Will Kain – Senior Vice President, Rusheen Capital Partners, LLC**
  - NanoH2O ([www.nanoh2o.com](http://www.nanoh2o.com) – sold to LG Chemical) – VP of Corporate Development
  - Altra Biofuels ([www.altrabiofuels.com](http://www.altrabiofuels.com)) – VP of Corporate Finance
  - UBS Investment Bank ([www.ubs.com](http://www.ubs.com)) – Associate Director, Equity Capital Markets Group
NANOH2O STORY
NanoH2O Highlights

Mission: Lower cost of desalination by leveraging nanotechnology to advance reverse osmosis (RO) membrane performance

☑ Independent Company for 9 Years

☑ Raised over US$75M in Equity Capital, more than US$25M in Debt Commitments to Fuel Growth

☑ Recognized as Global Technical and Service Leader in Membranes

☑ Successfully Sold Company to LG Chem in April 2014
Attracting Investors

✓ Raised over US$75M in Equity Capital, more than US$25M in Debt

Commitments to Fuel Growth

➢ Technology Value Proposition

➢ Market Opportunity

➢ Leadership Team

➢ Development and Funding Plan
NanoH2O Introduction

Mission: Lower cost of desalination by leveraging nanotechnology to advance reverse osmosis (RO) membrane performance

✓ Best-in-class RO Membrane Technology
✓ Broad and Well-Protected IP
✓ Deep Team with Extensive Water / Desalination Experience
✓ Strong Brand with Tier 1 Customer References
✓ Thorough Understanding of RO Membrane Manufacturing
✓ Rapid Expansion through Rich Product Pipeline, Manufacturing Growth
Attracting Investors – Technology

✓ Raised over US$75M in Equity Capital, more than US$25M in Debt

Commitments to Fuel Growth

➢ Technology Value Proposition:

1. Increase Revenue
2. Decrease Costs
3. Meet Regulatory Requirement
First RO Membrane Innovation in 25 Years

- 50-100% more permeable than existing polymer technology
- Improves best-in-class salt rejection by 25%
- Drop-in replacement for existing membranes
- 5 Patents / 3 Remaining Applications in 11 Countries
Attracting Investors – Market

✓ Raised over US$75M in Equity Capital, more than US$25M in Debt Commitments to Fuel Growth

➤ Market Structure:

  • Significant Market Size
    • Relative to Projected Capital Need
  • Existing Players / Expected New Tech
    • Economics
  • Barriers to Entry
$2+ Billion Global RO Membrane Market

Annual RO Membrane Module Revenue 2012 - 2018

19.2% CAGR

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue (in millions)</th>
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<tbody>
<tr>
<td>2012</td>
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<td>2018</td>
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Estimated RO Market Share

- Dow Filmtec: 33%
- Hydranautics (Nitto Denko): 25%
- Toray: 25%
- CSM: 8%
- GE: 5%

Source: GWI Q2 2013 Market Projections; NanoH2O
Barriers to Market Entry

- The barriers to entry in the global RO membrane market are significant
  - **Strong Technology** – membranes are a multi-variable equation
  - **Production Know-how** – only comes through experience
  - **Brand and Channel Development** – can only be achieved over time with strong, consistent team
  - **Sizeable Investment** – to scale manufacturing and achieve positive margins
Attracting Investors – Team

- Raised over US$75M in Equity Capital, more than US$25M in Debt
  Commitments to Fuel Growth

- **Leadership Team:**
  - Track Record
  - Industry Expertise
  - Diversity of Experience
Strong, Experienced Leadership Team

Extensive experience in water desalination technology, engineering & manufacturing – and building, financing and scaling high growth technology companies

Jeff Green
Founder and Chief Executive Officer
Serial entrepreneur (Archive, Stamps.com)

Doug Barnes
Chief Operating Officer
25+ years in manufacturing operations (Planar)

Nicholas Dyner
SVP of Sales & Marketing
10+ years in desalination (GE Water, Water Standard)

Kevin Coleman
VP of Operations
20+ years in membrane manufacturing (Hydranautics)

Alberto Goenaga
VP of Product & Process Development
20+ years in product development (E-Ink, Medtronic)

Jim Liu
Managing Director, China Operations
10+ years as General Manager of US Co’s in China (Planar, View Sonic)

Will Kain
VP of Corporate Development
10+ years in corporate finance and development (UBS, Altra Biofuels)

Tom Flynn
VP of Finance
15+ years of financial management leadership (TransDigm, Invacare)
Attracting Investors – Plan

✓ Raised over US$75M in Equity Capital, more than US$25M in Debt

Commitments to Fuel Growth

➢ Development and Funding Plan:

  • Focus on Company Mission
  
  • Technical and Commercial Milestones
    • Can you make it?
    • Can you sell it?
  
  • Timeline
NanoH2O Funding Milestones

Company founded based on UCLA research. Secured exclusive license to Thin-Film Nanocomposite (TFN) membrane technology.

2005
- Filed 1st patent on nanocomposite membrane technology and validated technology at UCLA.
- Developed high-throughput TFN membrane laboratory at NanoH2O’s R&D Facility.

2006
- Fabricated first high-flux 4-inch TFN SWRO module prototypes.

2007
- Successful completion of one year of long-term testing at Port Hueneme.
- Commenced field testing of TFN elements on open seawater intake at Port Hueneme U.S. Navy Facility.
- Shipped QuantumFlux elements to 1st customers.

2008
- Opened new commercial manufacturing facility in El Segundo, CA.
- Achieved 2x the flux of conventional polyamide membrane with >99.7% salt rejection on bench scale tests.

2009
- Commissioned 1st large-scale (4,000 m³/d) plant using Qfx elements.

2010
- Launched highest rejection SWRO membrane on the market.
- Official launch of QuantumFlux elements after 50,000 cumulative operating hours of TFN technology.

2011
- Introduced 400 ft² SWRO elements exhibiting highest flow rate in industry.

2012...

$1M Seed Round
$5M Series A
$20M Series B
$10M Series C-1
$40M Series C-2
Strong Financial Backers

Raised $75M equity / $25M venture debt from founding in 2005 – 2013:

• Equity investors include:
  - *Khosla Ventures* – largest VC investor in cleantech, ~$2B fund
  - *Oak Investment Partners* – CT / CA-based VC with $2.6B in committed capital
  - *BASF*, world’s largest chemical company
  - *Total Energy*, largest European energy company
  - *Keytone Ventures*, leading Chinese VC firm

• Debt providers:
  - *Comerica Bank* – backed by U.S. Ex-Im Bank
  - *Lighthouse Capital Partners*
  - *China Construction Bank*
NanoH2O Summary

- NanoH2O: raised and deployed >US$75M in invested capital
- NanoH2O clearly articulated its:
  - Technology Value Proposition
  - Market Opportunity
  - Leadership Team
  - Development and Funding Plan
- Investors responded, funded one of the most successful water-industry startups of last 25 years
CONTROLLED ENVIRONMENT AGRICULTURE
Investor Questions for CEA

What Are We Investing In?

- Value Proposition
- Market Opportunity
- Leadership Team
- Development and Funding Plan
CEA Investors – What Are we Investing in?

- Skyscraper Farm in New York City
- LEDs for Warehouse Farming
- Greenhouse Tomatoes
CEA Companies – Why Invest in Us?

- What problem are we solving?
- For whom?
- How much value can we capture by solving the problem?

TECHNOLOGY ➔ PRODUCT ➔ COMPANY
Investing in CEA – Summary

Key Questions:

- Investors: What Are We Being Asked To Invest In?
- Companies: Why Is This The Right Investment?
- Vision is Great, Plans are Better
- Investors and Companies are Partners
CONCLUSION
Attracting Investors to CEA: Conclusion

- Well-Defined Value Proposition
- Detailed Market Knowledge
  - Customer base
  - Competitive offerings
- Economics
- Capable Management Team
- Clear Company Roadmap
THANK YOU

QUESTIONS?