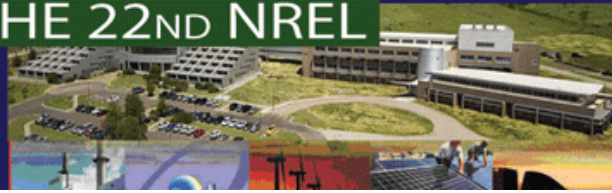


THE 22ND NREL



INDUSTRY
GROWTH FORUM

Denver, Colorado



Hydrovolts, Inc.

November 4, 2009

Burt Hamner, CEO
2815 Eastlake Ave E, #300
Seattle, WA 98105

www.hydrovolts.com

burt@hydrovolts.com

206-491-0945

Investment Sought:
\$500K

Overview

- Distributed hydropower in fresh water canals
- No dams or construction, simple permitting
- Level cost of energy < 2 cents/kWh
- Capital ROI in typical site is less than 5 years
- Patent-pending, differentiated turbine design
- Millions of untapped sites; multiple market segments



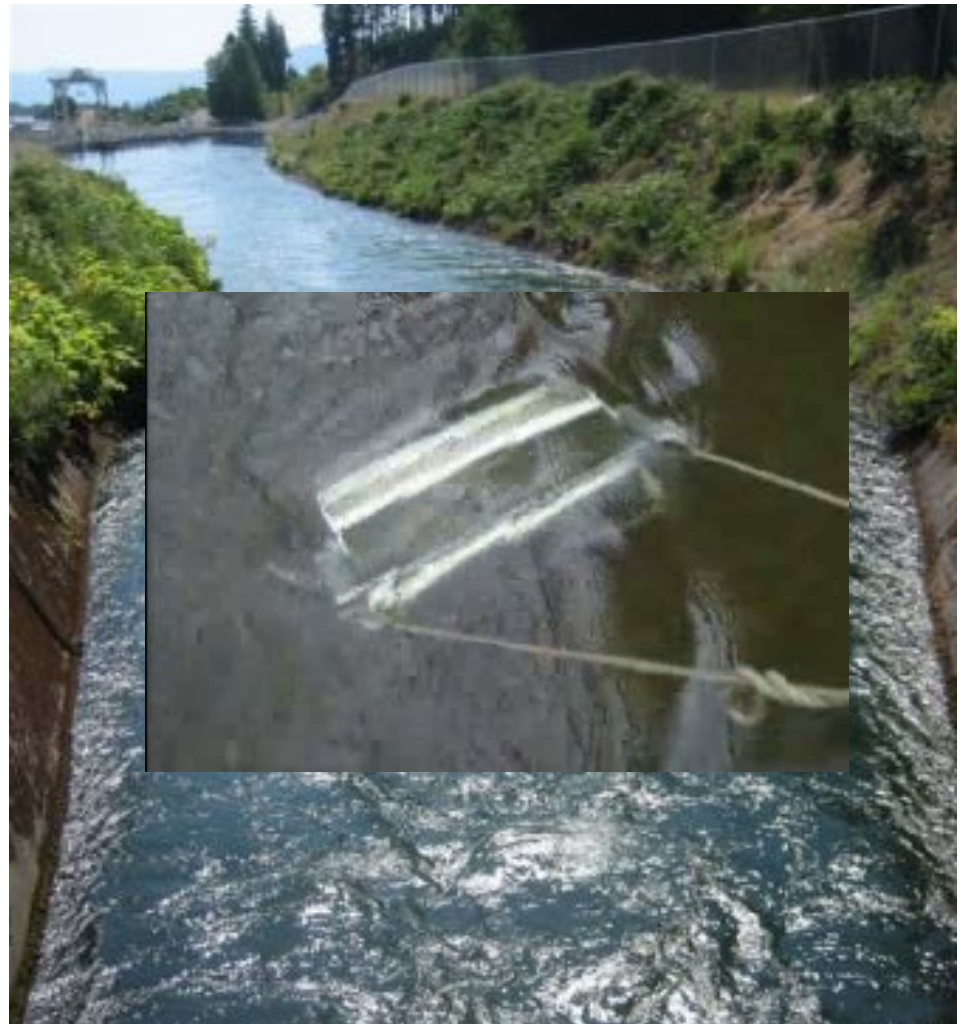
The Problem

- Fast water currents have huge energy density
 - 2 m/sec or 4 knots
(walking speed)
= 4 kW / sq m
 - 5 m/sec or 10 knots
(spillway speed)
= 62 kW / sq m
- But traditional technology is too complex, expensive, not adaptable



The Solution

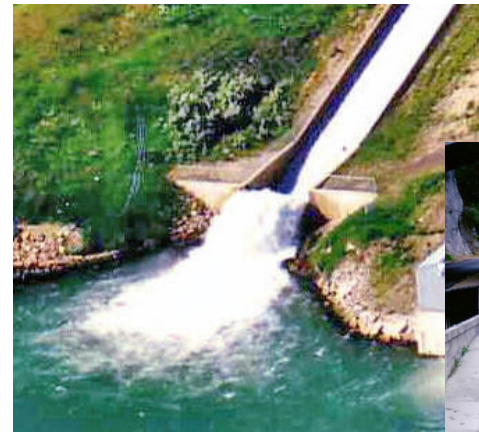
- Our new *hydrokinetic* turbine
- < 1% the materials, cost and complexity of a waterwheel
- Also works in spillways
= high power output
and in slower currents
= more sites
- Drop-in solution with rapid installation and removal
- Build the business in controlled waterways, not rivers or oceans



Market Size and Growth

- **Irrigation Districts in Western USA**

- Increasing energy costs, renewable energy goals and mandates, and fast water!
- 400+ districts with 20 miles each of usable canals with 10 turbines per mile
- → TAM = 80,000+ turbines; potential market of \$1.2B
- Engineers on staff, relatively simple permitting, easy access to sites
- Market is totally untapped



- **Expansion Markets**



Competition

New Energy Corporation

More expensive, needs faster current, more fouling, less adaptable

Hydro Green Energy, Verdant Power

Much larger turbines, much smaller market, less adaptable



Installed Cost of 5 kW generation from:

<i>Solar</i>	<i>Wind</i>	<i>Hydrovolts</i>
\$9-10/Watt or \$50,000 - Serious construction, - Intermittent power	\$5-6/Watt or \$30,000 - Serious construction, - Intermittent power	\$2-3/Watt or \$15,000 - NO construction, - STEADY power

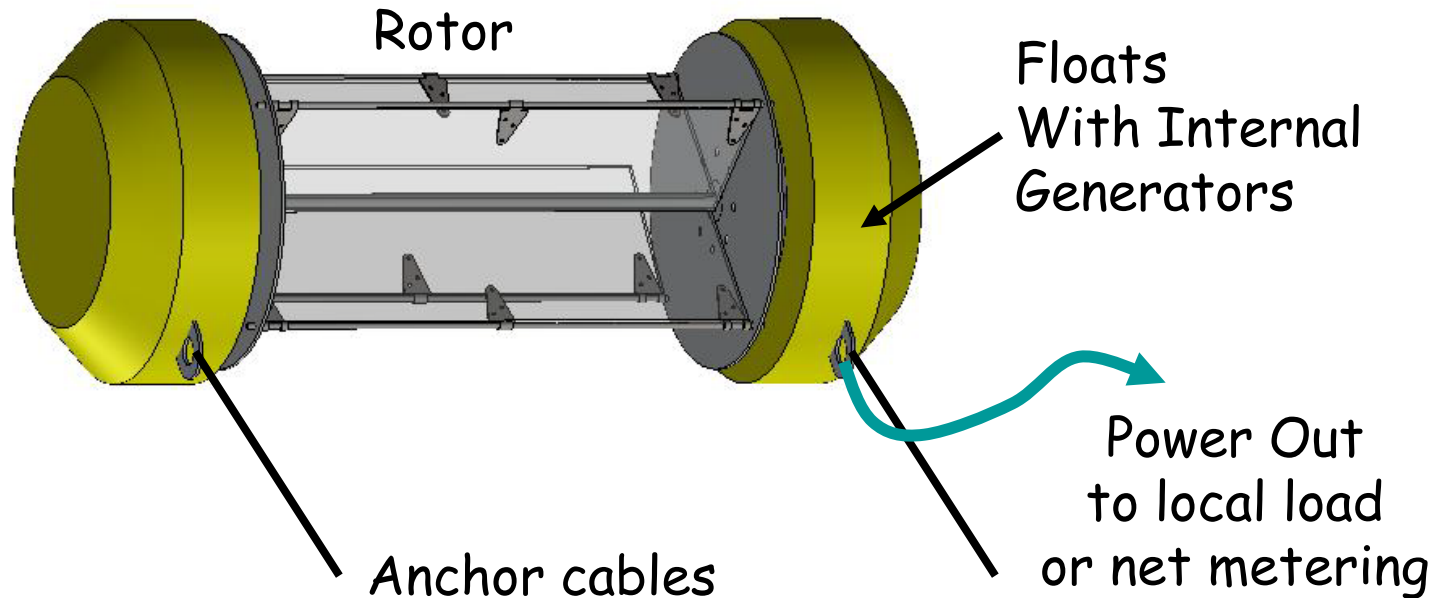


Product

Floating turbine generates 1–25 kW at < \$0.02/kWh



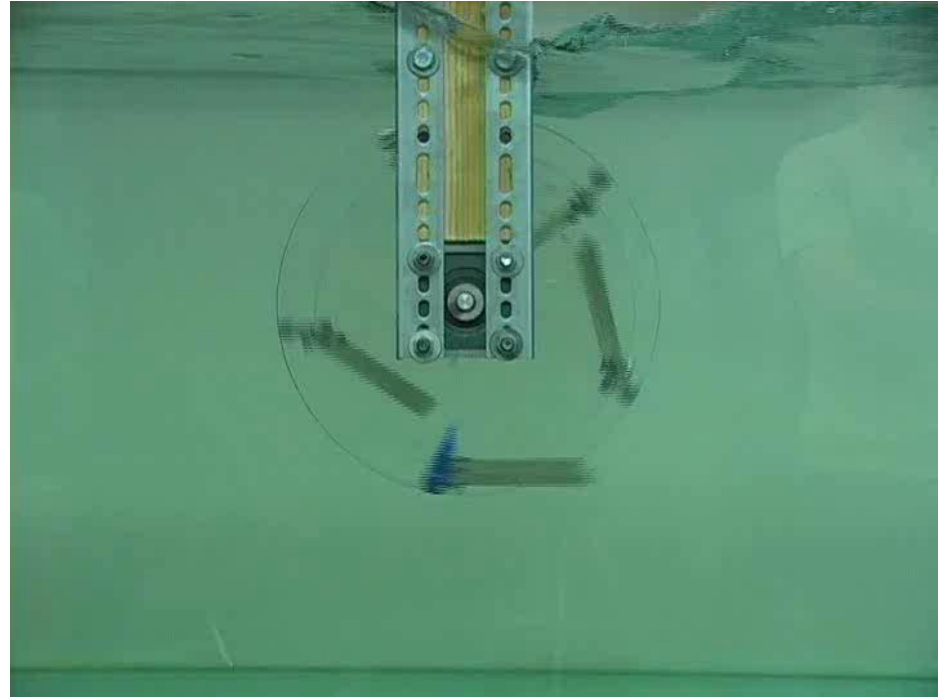
- Compact
- Complete
- Modular
- Safe
- Scalable
- Simple



Anchored in canal, it generates power for nearby pumps or for net metering into grid

Technology

- Validated in tank tests at **University of Washington**
- R&D agreement signed by **Woods Hole Oceanographic Inst.**
- Patent-pending, more underway
- **Waterproof generators**
- the (“secret sauce”) –
are in development and patent
- Canals provide **easy development**
sites and few permitting issues



Business Model

- **Product:** Portable free-fuel generators for companies
 - for remote power or sell to the grid
- **Pricing:** Comparable to gas generators of same capacity
- **Production:** Mostly off-the-shelf parts, regional fab shops
- **Validation:** Regional demonstration projects
- **Sales:** Initially direct, then thru dealers; multiple unit sales
- **Growth:** From western canals to key global markets



Sustainability

- **Production:** Activity-based costing and TQM drive to zero emissions; supplier help and audits; local assembly
- **People:** Open-book management; local expertise development
- **Customers:** Help them join sustainability networks; engage communities
- **Measure:** Use GRI *Sustainability Reporting Guidelines*
- **The Poor:** Hydrovolts Foundation partners with development orgs; 5% of profits support turbine donations
- **Milestone:** First developing country installation in 2Q 2011 – after successful domestic market growth



Team

CEO

Burt Hamner

30 yrs in marine, clean tech and int'l dev't;
Clean tech consultant to UN, US AID, World
Bank, others

COO

Chris Leyerle

12 yrs Microsoft development manager
6 yrs CEO of electronics cooling manufacturer

CFO

Chris Huston

20 Start-ups as CFO, advisor, Board member
20+ yrs banking VP, SeaFirst, Bank of America

Dir. Engineering

Brian Peithman

5 yrs Navy Submarine Officer and Engineer

Gaps

Sales & Marketing, Production & Manufacturing;
New CEO in year 2

Advisors

Marine engineering, water pump sales, canal
design, environmental, patent



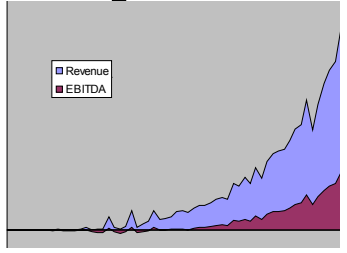
Financials

To Date \$60,000 personal investment; no sales yet

Raise Series A: \$500,000; Series B: \$3.1M

Use of Proceeds Prototype and demo unit construction
 Demonstration projects
 First: Roza Irrigation District by 2Q 2010
 Patents
 Sales / marketing & Customer engagement

Projections



Cash flow positive in:	2Q2011	
Yearly revenue expectations:		Head Count
• Year 1:	\$2,340,000	20
• Year 2:	\$10,035,000	30
• Year 3:	\$29,645,000	40

Grants Many opportunities to minimize dilution



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Addenda

- Level Cost of Energy
 - 15 yrs = 131,400 hrs
 - Standard model output 10 kW / hr
 - Size 3x1 m, in 3 m/sec flow
 - 15 yrs at 80% output = 525600 kWh
 - Cost \$21,000
 - Level cost of energy is \$0.02/kWh

IP Strategy

- Patents pending and probable
 - Rotor, floats, anchoring, transmission:
IP “Fence”
- IP vs Execution
 - Execute fast and big
 - Get best pricing through volume
 - Lock up best customers
 - Publish the story – We own this solution
 - Defend IP in institutional sectors