Epiphany’s Breakthrough Solution for Shale Gas Production Water Remediation and Management
Company Overview

- Established in 2009.
- Modified solution using CSP to remediate industrial waste water.
- Closed loop solution to purify production water from shale gas hydro-fracturing process.
- Company mission: Use renewable energy resources to produce water at a cost below market prices.
- Providing intelligent solutions for the increasing competition for water between industries and communities.
The Immediate Opportunity

• Extraction and production of massive worldwide shale gas deposits will drive economic activity and the goal of energy independence for the next 50 years.

• Epiphany’s technology solves the #1 problem for operators -- how to source, use and dispose of water -- while also significantly lowering their cost of well operations.

• Epiphany’s solution eliminates a major global environmental concern with fracking – water.
From a Citi Investment Research report states that produced water market is 20% of a $500B global water market. Water treatment of worldwide shale gas is one of the fastest growing. In North America alone our market is worth $2.5B and growing.
Technology

Micro-Distillation Plant, Rev: v4.1E

Inputs
- Well Head
- Contaminated Frac Water
  ~100,000 Gallons
  ~25 Truckloads

On-Site Processing
- PMC Biotec
  Bio-filtration Unit
- Epiphany SWS
  Distillation Unit

Telemetry
- Event Collector / Rules Engine
- VSAT Uplink
  (Event Alerts can be sent to Cell Phones, Emails, etc. or remote log-in)
- DATA Bus
  (RS/232/422/AB)

Outputs
- Metals for Processing
  ~7,000 Lbs
  ~10 Barrels
- CLEAN SALT for Resale
  ~250,000 Lbs
- CLEAN WATER for Resale
  ~80,000 Gallons

Note: Schematics not to Scale
(FOR EVALUATION PURPOSE ONLY)

Epiphany Solar Water Systems
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Epiphany SWS
Solar Thermal Collection System
- Solar Dishes
- Thermal Storage Tanks

PMC Biotec
Bio-filtration Unit
- Event Collector / Rules Engine

Epiphany SWS
Distillation Unit
- 3G Uplink
  (Event Alerts can be sent to Cell Phones, Emails, etc. or remote log-in)
Consol Greene County Installation
## Value Proposition

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<th>Reducing Truck Traffic</th>
<th>Recycling Production Water</th>
<th>Closed Loop System</th>
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<td>• Cost and Liability</td>
<td>• Water and Salt Recovery, Recycle, and Reuse</td>
<td>• Onsite Waste Stream Recovery</td>
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<td>• Road and Environmental damage</td>
<td>• Community and Regulatory Support</td>
<td>• Data Monitoring</td>
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<tr>
<td>• Reduction of Water and Air Pollution</td>
<td>• Operational Efficiency</td>
<td>• Renewable Energy Input</td>
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Field Demo Status

- Lab tests successfully completed.
- Operational at active Consol Energy well pad in Greene county – Well 2 years old producing approximately 200+ gallons per day.
- Initial field test to be completed in November – will publish results in December.
Target Cost & Value

- Will be rolled out as a contract service directly to operators or through partners.

- Pricing based upon outcome of current testing at Consol wellpad.

- Target is 10% – 20% less than other options while maintaining healthy top line margins.

- Decentralized & Automated capacity management.
Current Status & Next Steps

- Joint project with CONSOL ENERGY
  - Summer test in Greene County – Fall production.
  - Current test on produced frack water. Will be moving on to other water applications
  - CNX made venture investment in June 2012.

- Currently raising $4m - $5m Series A.

- Limited production of units starting Q2 2012.