

Geysir Green Energy Iceland

March 2008



### THE COMPANY

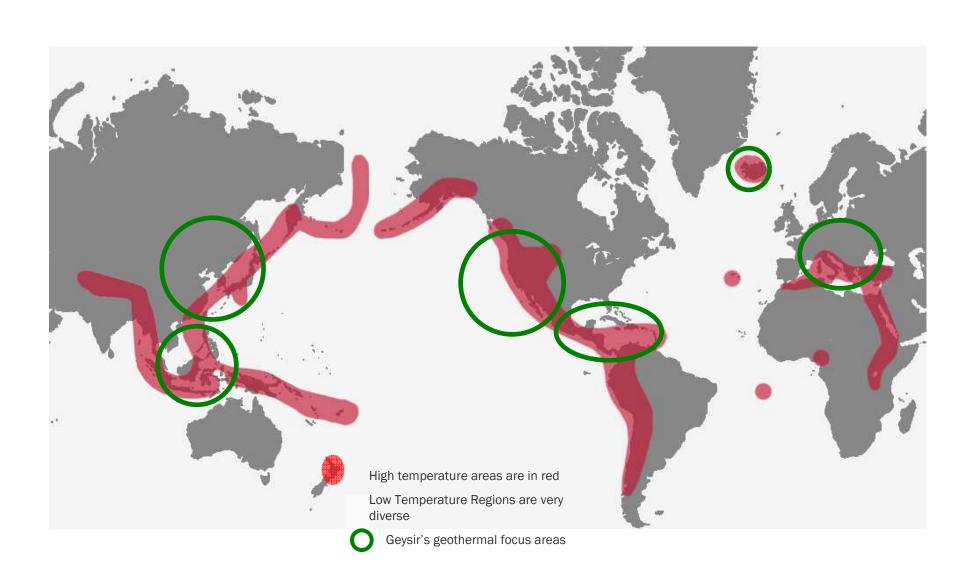


Geysir Green Energy was founded in January 2007 by several Icelandic investors. Company founders provide firm backing and have a long term view of the renewable energy sector.

- Strong financial backup
- Investment knowledge
- Access to deal flow
- Experience and expertise in engineering, project management and construction
- Share capital USD 300 million
- Total assets USD 650 million

## CURRENT AREAS OF FOCUS





### JARDBORANIR HF. - ICELAND DRILLING [100%]



## World leading geothermal drilling co.

- Highly specialized in hightemperature drilling
- High operations standards and modern equipment
- Strict safety standards.
- Employees: >200
- Turnover 2007: 110 m USD
- No. of rigs: 10

#### International subsidiaries:

- Hekla Energy, Germany
- Iceland Drilling UK Ltd.



#### Areas of operation:

Iceland, UK, Ireland, Portugal and Germany

### HITAVEITA SUDURNESJA HF [32%]



## World leading geothermal operator for 30 years

- Svartsengi Power Plant a technical breakthrough as the first geothermal CHP unit in the world.
- Transforming the Svartsengi power plant into a "resource park".
- Electricity 75 MW, District heating 150 MW.
- Water production and distribution.
- Blue Lagoon Spa, Restaurant and Health Clinic.
- Cosmetics/Personal Care, biotechnology research.

#### Areas of operation:

 New 100 MW power plant at Reykjanes Iceland in operation since 2006.

## Further expansion of power plants:

- Additional 150 MW by 2010.
- Additional 135 MW by 2014.

Considerable opportunity for power plant expansion and development in Iceland and elsewhere.



#### Preparations to merge with Enex in 2008 have commenced.

#### World leading geothermal firm

- Icelandic geothermal developer founded in 1969 by Iceland's largest energy and engineering companies.
- Has offices in Iceland, Germany,
   China and USA.

#### Enex operation fields

- Engineering, Procurement & Construction.
- Geoscientific research and consulting.
- Financing.
- Operation.
- Project Development.

#### **Affiliates**

- Germany: Enex-Deutschland
   GmbH, Enex Power Germany
   GmbH
- China: Enex China.
- Slovakia: Slovgeoterm a.s.
- United States: Iceland America
   Energy IAE [with 71% stake]

#### Iceland America Energy Inc.

- Mission is to become one of North America's largest and most effective geothermal development companies.
- First Project is in Truckhaven
   California USA (Phase One: 49
   MWe Power Plant).

### EXORKA INTERNATIONAL LTD. [66%]



## Specialist developer of low-temperature geothermal

- Utilizes the Kalina technology
  with an ammonia-water mixture
  for high efficiency steam
  production, through a binary
  cycle. Experience with a 2.1 MW
  power plant in Husavik, Iceland.
- Clean energy company based around geothermal resource ownership and superior generation technology.
- Shareholder from Germany,
   Iceland, Australia and Canada.
- Investment Plan for next four years more than €150 Millions.

#### Two main Projects

- The Molasse Basin, Bavaria Germany.
- The San Jacinto Project Nicaragua.

#### **Affiliates**

- Exorka NZ Ltd.
- Exorka Australia Pty Ltd
- GPS NZ Pty Ltd.

#### **Exorka Offices**

Germany, New Zealand and Iceland.

### OWNERSHIP IN PUBLICLY TRADED COMPANIES



#### PNOC- EDC [0.4%]

- In the Philippines; single world's largest geothermal operator with 700 MW generating capacity and 1,100 MW of steam fields.
- PNOC was fully privatized
   December 2007.
- Controlling stake in PNOC is held by the company First Gen.

#### Western Geopower Corp [20%]

- A Canadian company, listed on TSX.
- Developing a 30 MW
  geothermal plant, Unit 15, at
  the Geysers geothermal field in
  Sonoma County, CA at site of
  former plant.
- PPA with PG&E signed.
- Drilling of 8 additional wells to commence fall 2007.
- Also developing project in the South Meager, British Columbia.

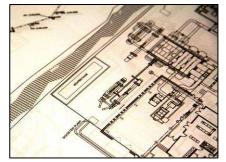


# Enex Introduction March 2008









### Shareholders



Geysir Green Energy Reykjavik Energy Invest



Remaing sharesholders are

Engineering and Consulting firms in the Icelandic energy sector.

## Current Projects



Germany

China

USA

Slovakia

Hungary

El Salvador













### Slovakia



#### **Geothermal District Heating**

3 project companies founded with three municipalities

Location: Slovakia

Purpose: Feasibility reports on the use

of geothermal areas for district heating









### Germany



Geothermal Combined Heat

& Power Plants

Binary Power Plants Germany Size

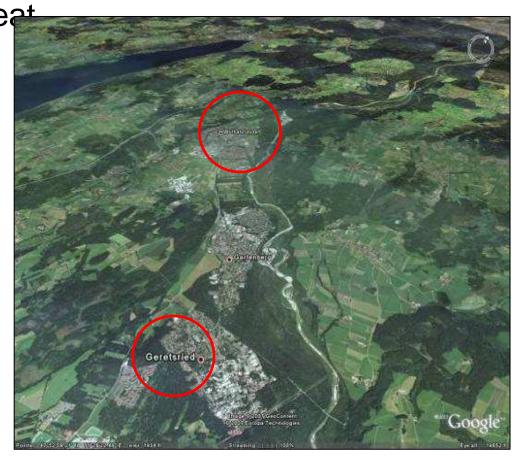
5 -15 MW Electric Power 40 MW Thermal for DH

Temp: 150-170℃

Well depth: 4.500 m.

Project schedule:

First plant 2007-2009



## 10 MW Binary CHP Plant Germany





## Hungary



### Binary Power Plant and District Heating

Joint Venture with;

MOL (Hungarian Oil & Gas Company)
Green Rock Energy (Australian investment co.)

Exploration & Development of a geothermal heating and power plant





### China



#### **Geothermal District Heating**

Xiangyang city, China

Temperature: 90-110℃

Potential of becoming the

world's largest DH system in 2012-2015

15.000.000 m2

Will serve roughly 500,000 people

First phase completed 2006

Second phase completed in 2007

Additional 600.000 m2





## El Salvador



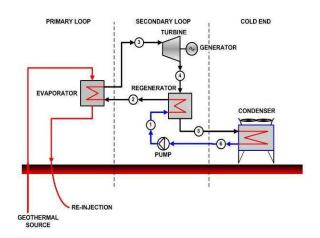
### **Binary Power Plant**

**EPCM** contract

Buyer: LaGeo SA, El Salvador

Binary bottoming plant (ORC)

Size: 8 MW





### USA



#### Iceland American Energy

IAE's office opened in LA, California in October Projects from Alaska to the Mexican border Western states to Texas

US geothermal industry is realizing the potential of geothermal energy!

A lot of companies in the US are looking for geothermal projects and looking to cooperate with IAE

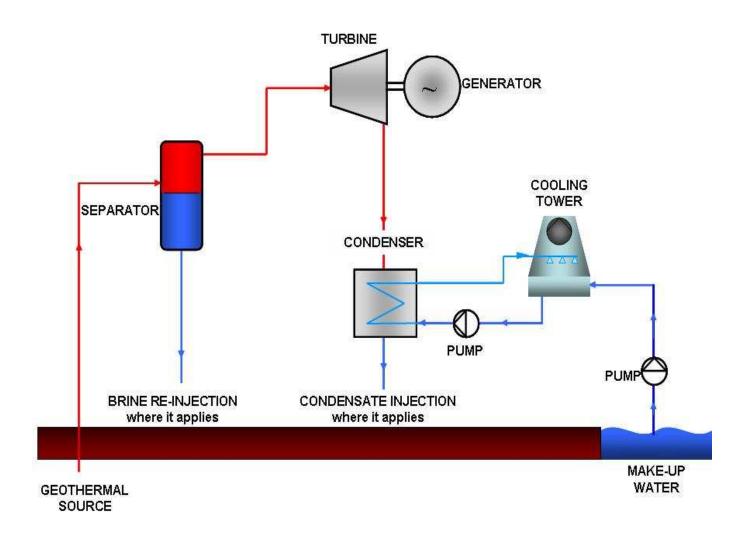
IAE is developing projects with companies but Confidentiality Agreement clauses prevent more information sharing



Opening of IAE's headquarters in LA, Oct 2007

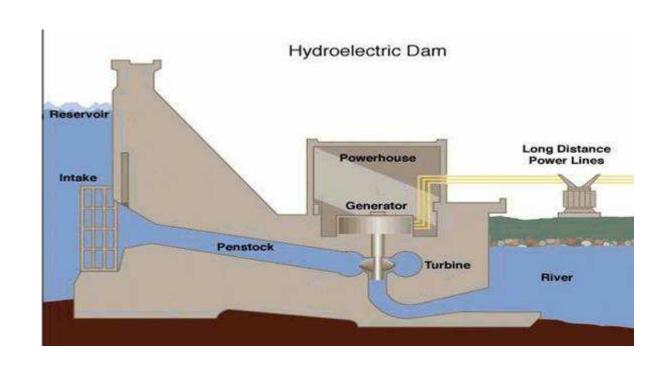
## Simplified geothermal power plant cycleenex





### Simplified hydro plant

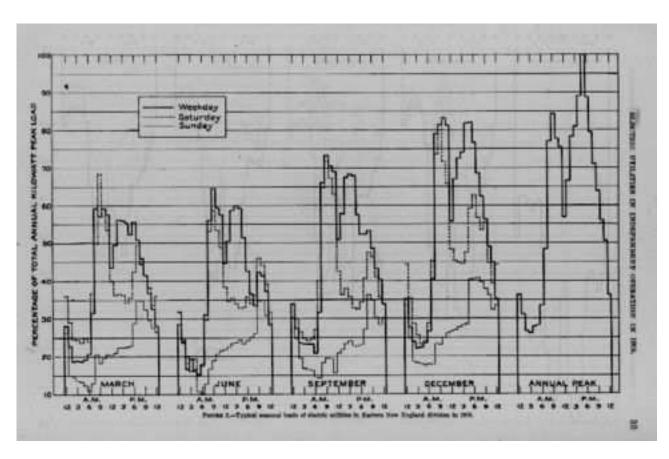




By using the difference in static energy. Issues are mainly height, water flow and possibility and need for reservoir.

### Electrical load curve

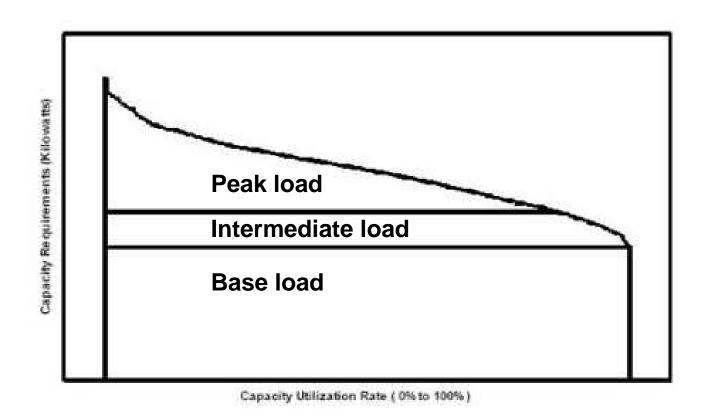




Electrical load varies through the day, week and the seasons..

### Electrical load curve





Different solution for different load, Geothermal, Hydro, Wind, Solar, Biomass and Fossil



## enex Caribbean Islands

- Within the Eastern Caribbean archipelago, 11 islands have geothermal potential
  - Dominica
  - Guadeloupe
  - Grenada
  - Martinique
  - Montserrat
  - Nevis & St. Kitts
  - Saba
  - St. Eustatius (Statia)
  - St. Lucia
  - St. Vincent







## **Defined Projects**

- Nevis
  - 50 MW<sub>e</sub> power plant
  - Drilling started
  - Online at the end of 2009
- Guadeloupe
  - Bouillante 3
  - Still in per-feasibility phase





## **Geothermal Potential**

| Island                | Current<br>Utilization                  | Estimated Potential*  |
|-----------------------|---|-----------------------|
| Dominica              |   | 1 390 MW <sub>e</sub> |
| Grenada               |   | 1 100 MW <sub>e</sub> |
| Guadeloupe            | 15,5 MW <sub>e</sub>                    | 3 500 MW <sub>e</sub> |
| Martinique            |   | 3 500 MW <sub>e</sub> |
| Montserrat            |   | 940 MW <sub>e</sub>   |
| Nevis & St. Kitts     | 50 MW <sub>e</sub> (under construction) | 1 280 MW <sub>e</sub> |
| Saba                  |   | 3 000 MW <sub>e</sub> |
| St. Eustatiu (Statia) |   |                       |
| St. Lucia             |   | 680 MW <sub>e</sub>   |
| St. Vincent           |   | 890 MW <sub>e</sub>   |

<sup>\*</sup>Database of Geothermal Resources in Latin America & the Caribbean, 1999.



## Submarine Cable

- The Islands can be connected via submarine cable
- Excess power can be exported to neighboring Caribbean islands
- New industries can be attracted by low energy prices and strong infrastructure.







## Local focus

- Energy solutions for respective market
  - Geothermal
  - Hydro
  - Wind
  - Biomass
  - Solar
  - Incineration



## Next steps

- Define geothermal projects in the Caribbean Islands
- Perform feasibility studies
- Prepare projects for investment







## Thank You