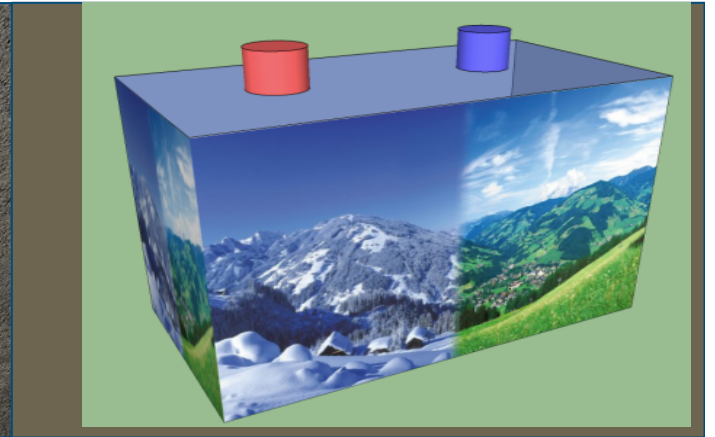
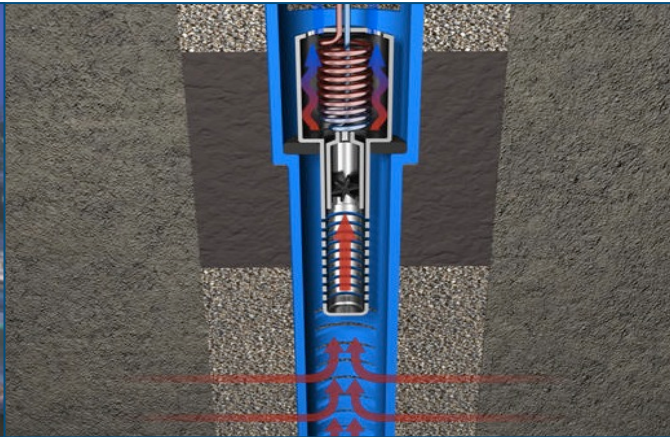


geo^{en}

Innovative Geothermal Systems



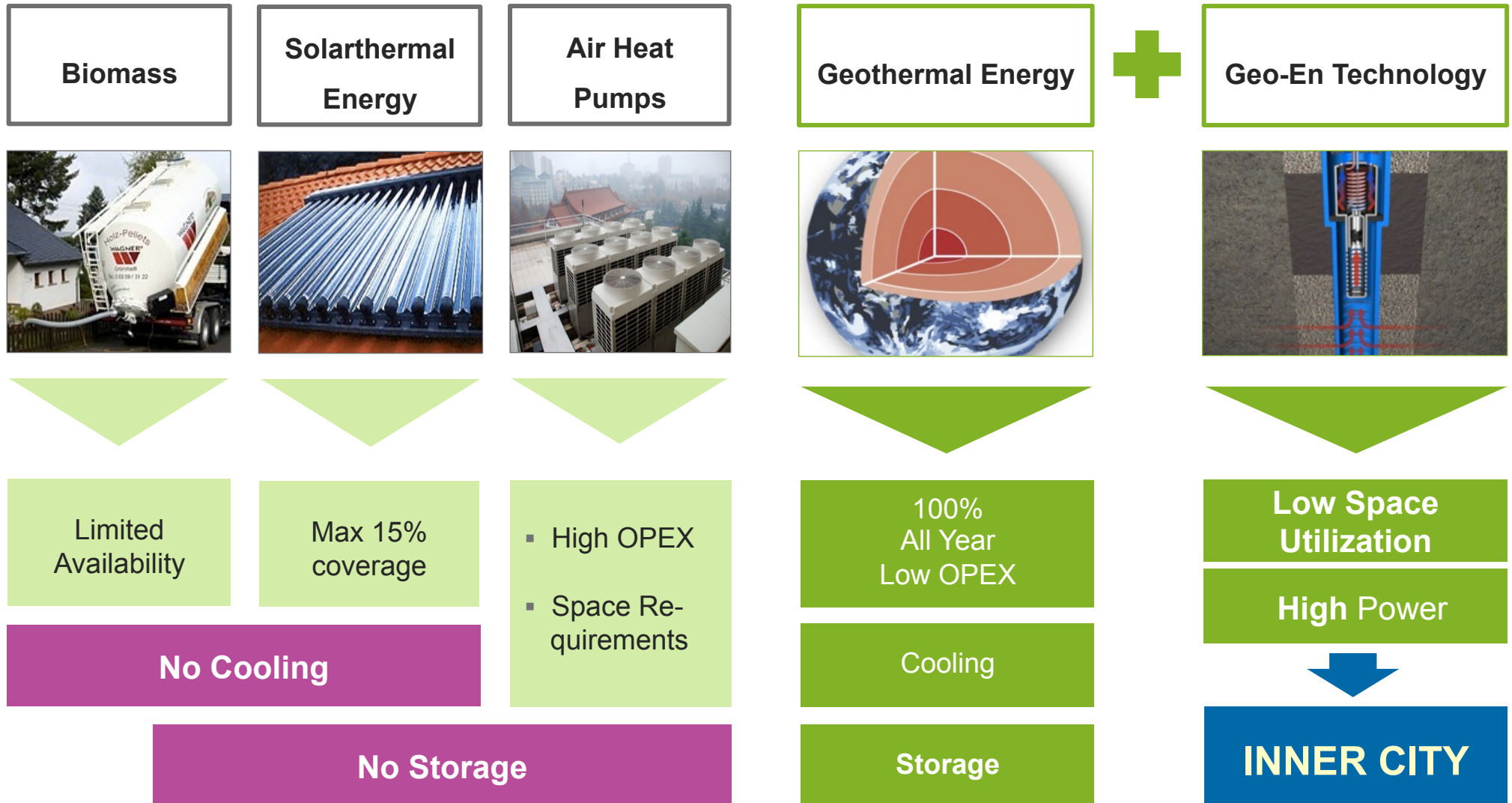


Pieter Bots
Managing Director
Co-Founder & Investor

Pieter.Bots@Geo-En.de
0172 - 954.2907

Geo Storage.
Powerful Renewable Energy.

■ Geo Storage: Works where other renewables don't

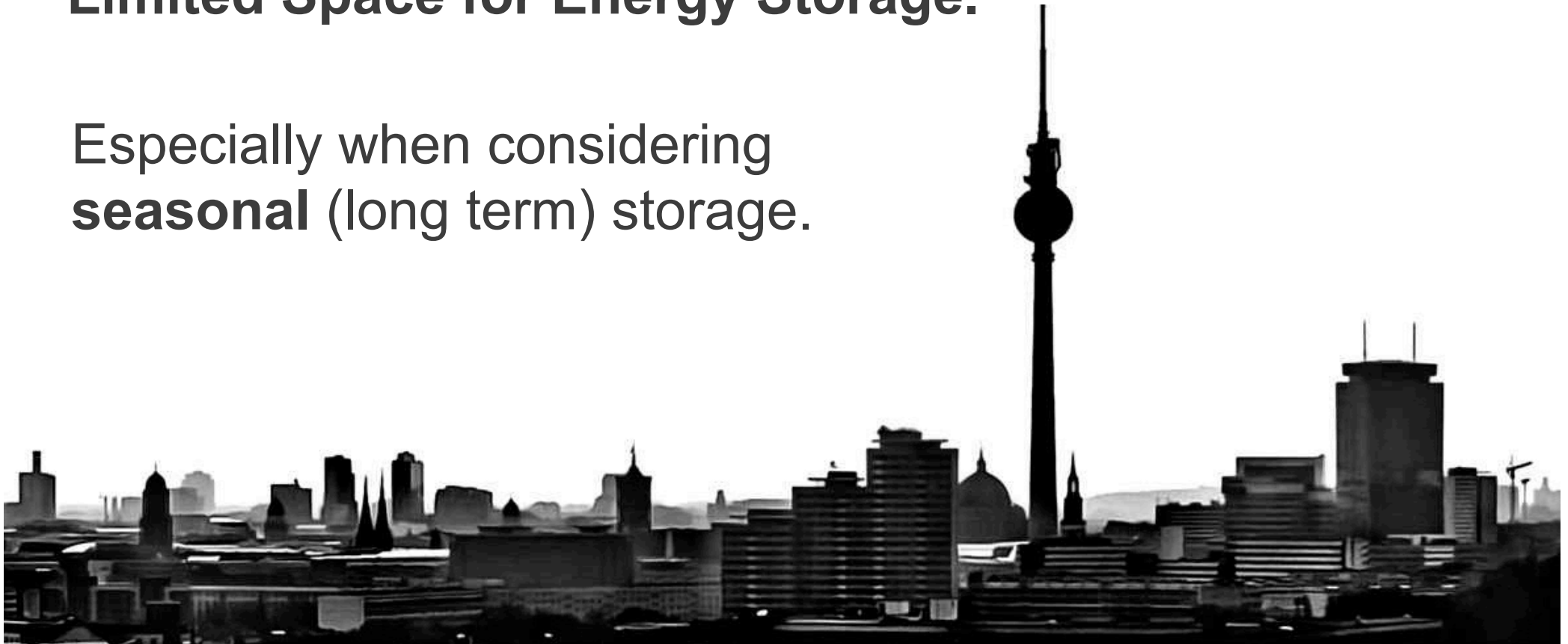




■ Typical dense Cityscape

Many buildings.
Limited Space for Energy Storage.

Especially when considering
seasonal (long term) storage.



Seen from the earth 's perspective . . .

geo^{en}
Innovative Geothermie-Systeme



US Dept of State Geographer
© 2013 ORION-ME
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
© 2013 Google

ENERGY
STORAGE

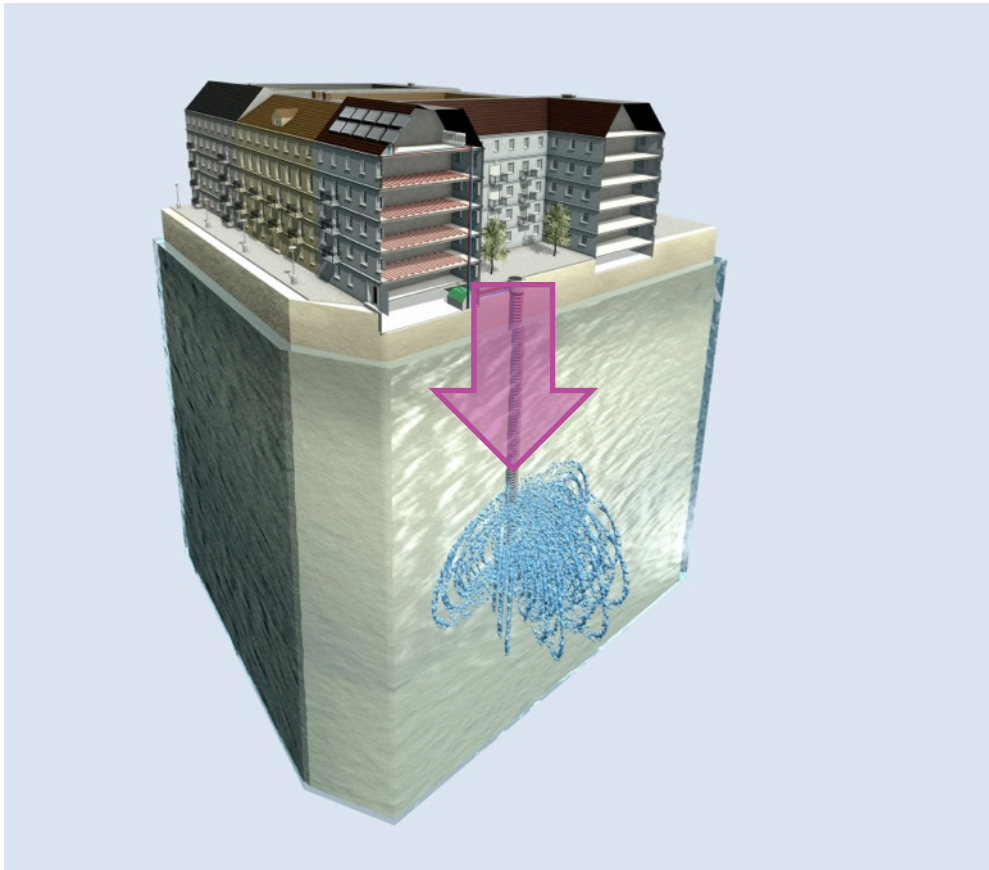
. . . . a huge **Storage potential** is available

. . . . underneath the city

■ Geo Energy Storage Principle

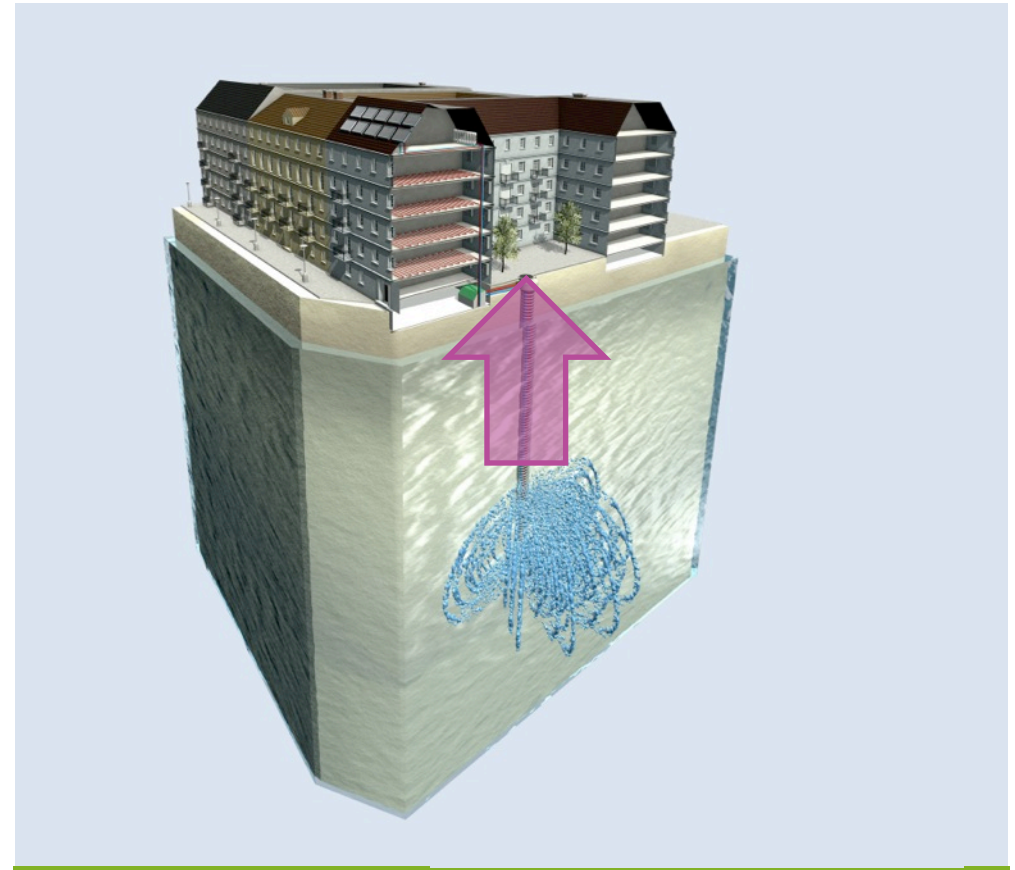
SUMMER (Cooling Mode):

Heat is **injected** into the earth by the Geo-En System.

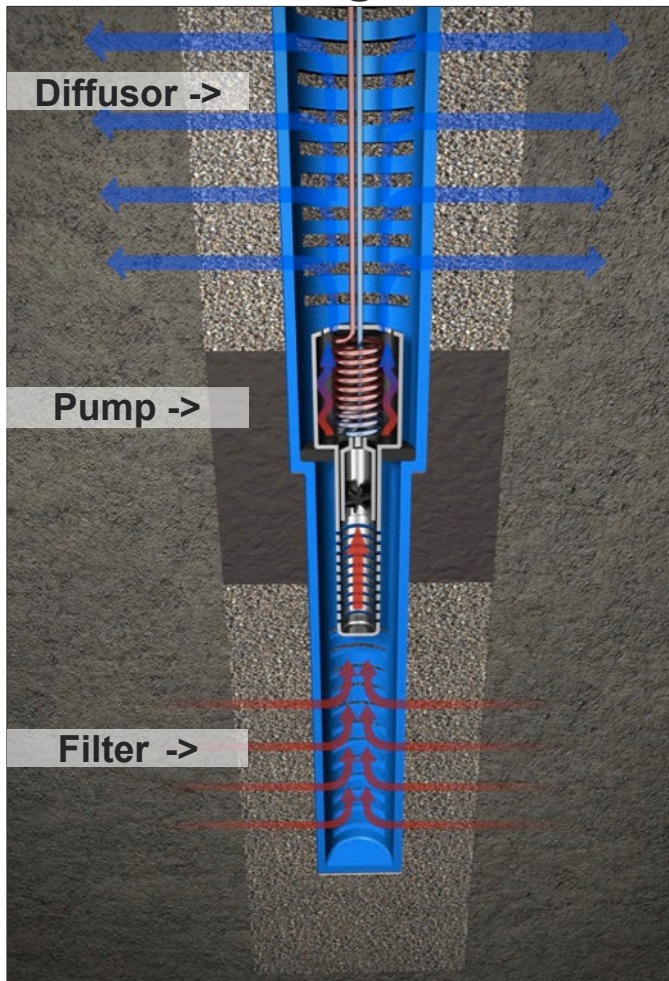


WINTER:

The Geo-En System **extracts** heat from the earth.



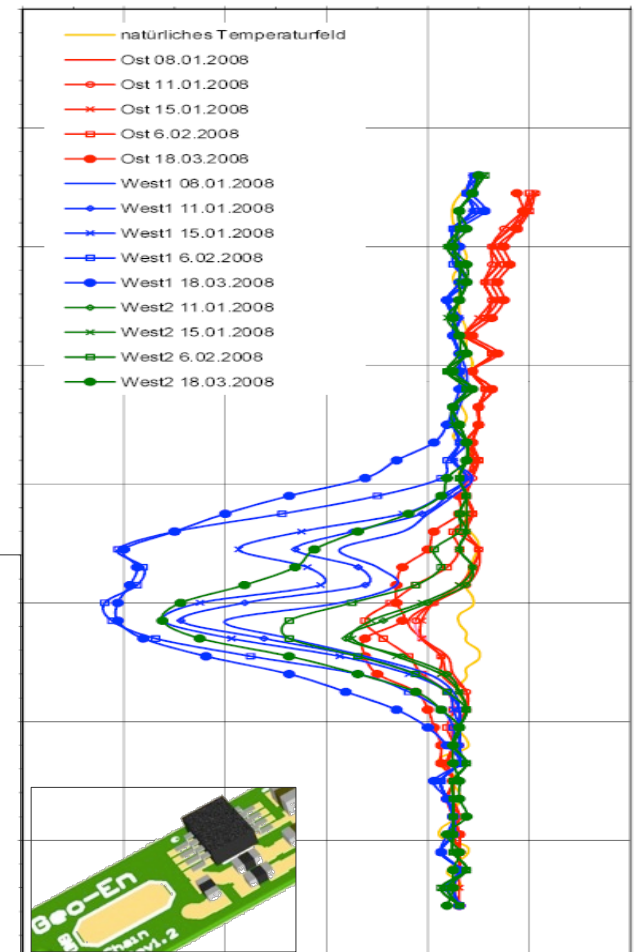
Geo-En Storage Module



- Seasonal energy storage
- Modular system
- Extremely Compact
- Patented technology
- Small footprint
- High efficiency
- Constant temperature

- High Tech Software driven Modules for controlling energy flows
- Patented
- High resolution
- Standardized interfaces for easy integration

Energy Flow Control Unit



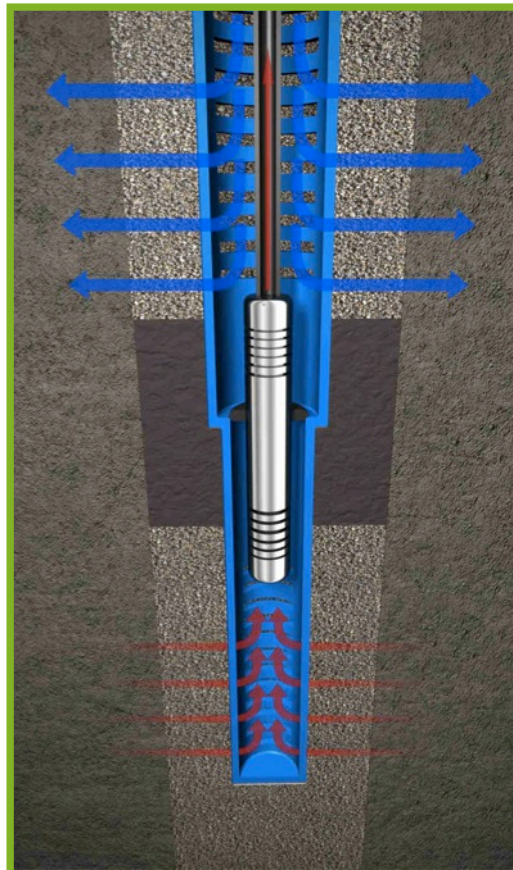
The Geo-En System - Application Overview -

Highly efficient seasonal energy storage

- Patented single borehole system



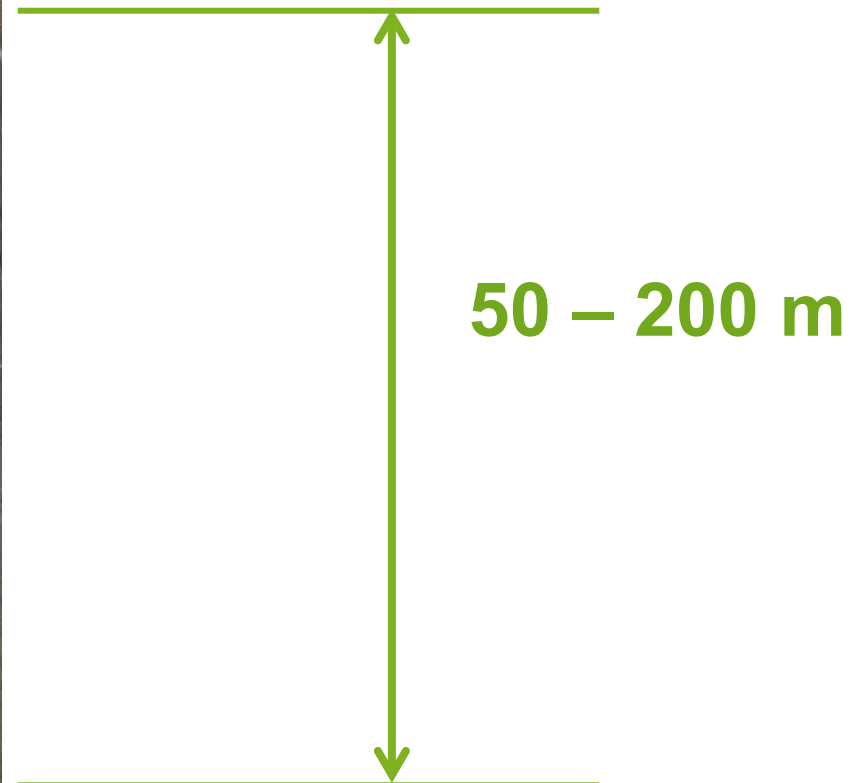
- Space efficient
- Seasonal Storage
- Heating & Cooling
- High Power
- Fits under or next to buildings



► **Geo-En** has developed a **Geo Storage system** that is *powerful, space saving and highly efficient*



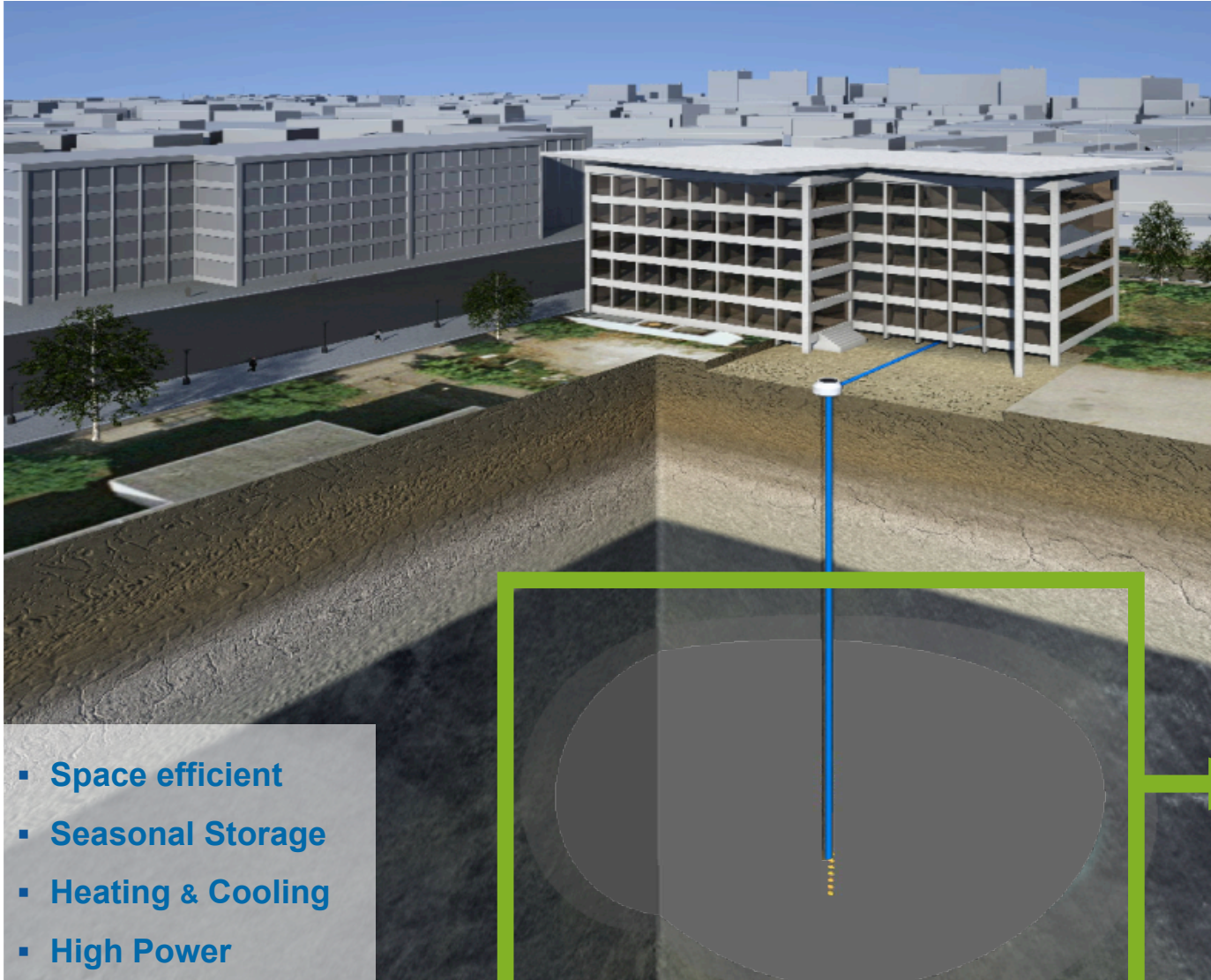
Drilling Depth



Geo-En Heat & Cold Storage Technology



Efficient use of **Geothermal Energy** through **Seasonal Storage**

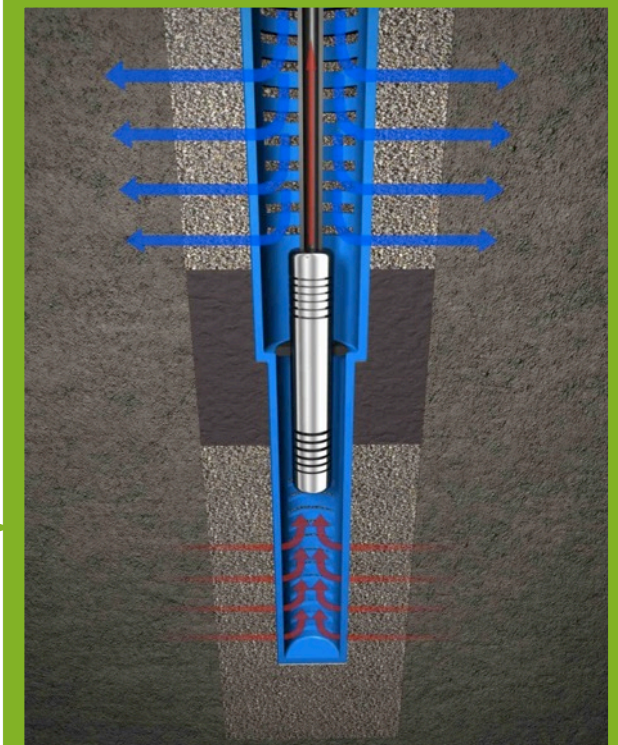


- Space efficient
- Seasonal Storage
- Heating & Cooling
- High Power

Patented One-Borehole Technology

Geo-En holds several international patents for its **space saving, active, single borehole system**.

Enabling **highly efficient** heating and cooling of large buildings



Why buy a Geo-En System?

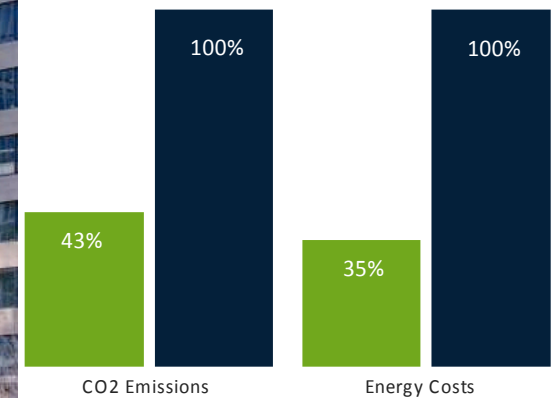
“Green” Building, DGNB gold certificate, Hamburg



Emissions Savings

Cost Savings

- Geo-En Heating & Cooling
- Gas + Air Cooling



Jan. 2013:
Office Building in
Braak, near Hamburg



Apr 2013:
Nursing Home,
Kleinmachnow,
near Berlin



Feb 2013:
Residential Building
& Clinics, Berlin



May 2013:
Data Center,
Bremen



Mar 2013:
Zero Emission Housing,
Strausberg, near Berlin

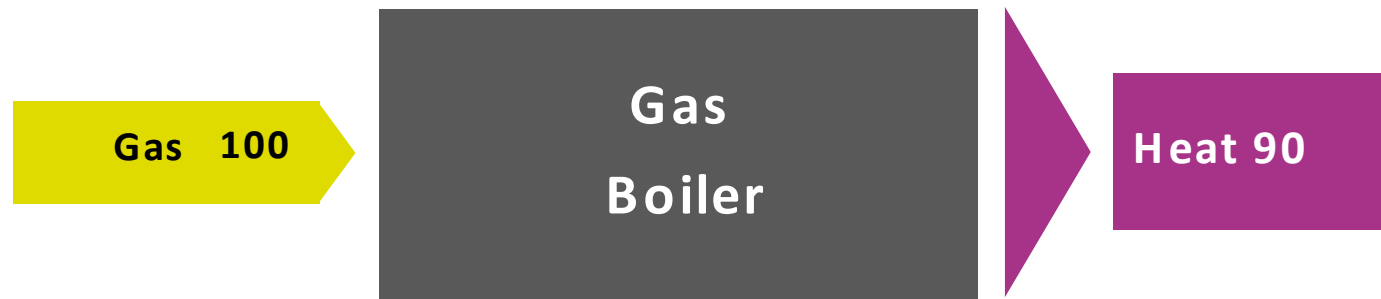


June 2013:
Luxury Residences
Potsdam



■ Comparison of Heating Systems

Conventional Gas Boiler



■ Comparison of Heating Systems



■ Comparison of Heating Systems



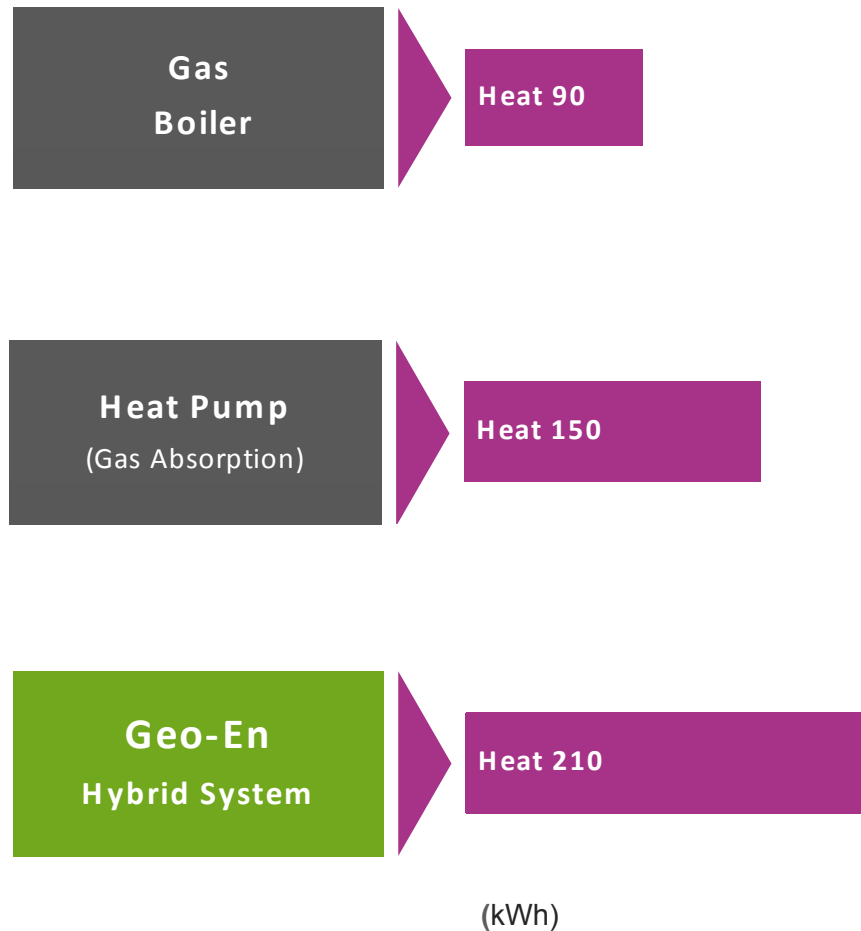
■ Comparison of Heating Systems

How much
heat

can be
produced
with

100 kWh

Gas ?



■ Comparison of Heating Systems

OR:

How much
Ga
s
do I need
to produce
100 kWh
of **heat** ?

Gas 111

Gas
boiler

Savings

Gas 67

Gas
Heatpump

40 %

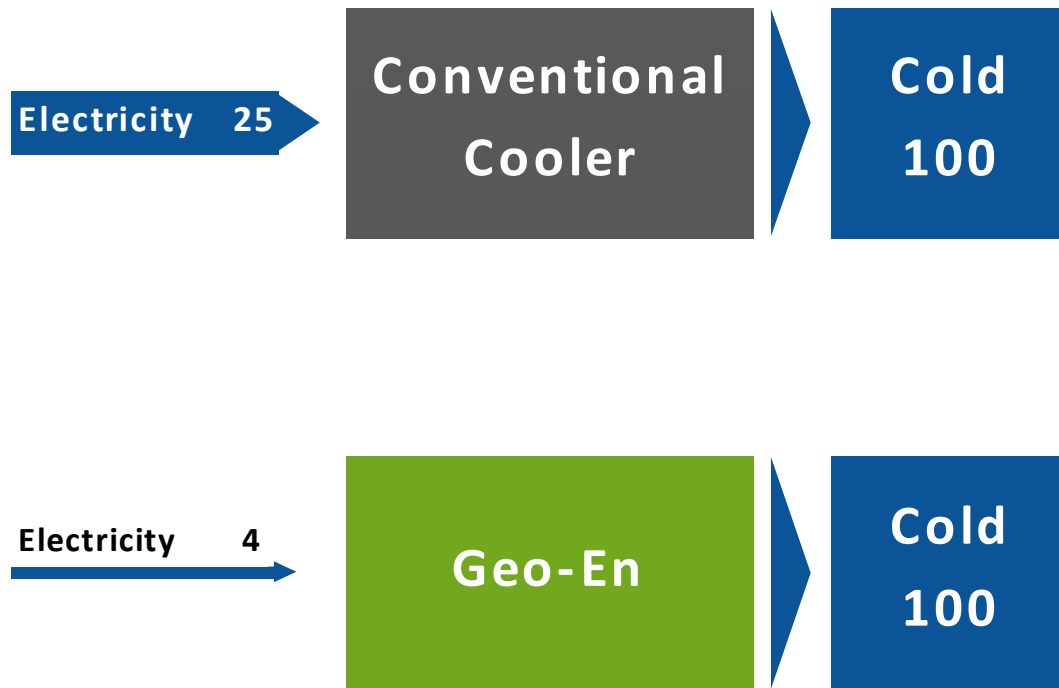
Gas 46

Hybrid
System

60 %

(kWh)


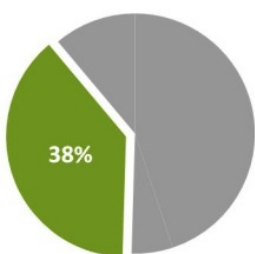
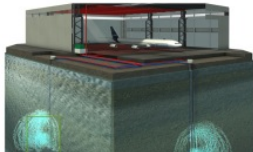
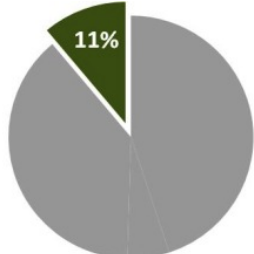

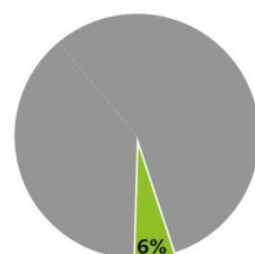
■ Comparison of Cooling Systems



Savings

> 80 %

Market segmentation by floor space

Market Segment	Commercial Buildings	Special Buildings	Large Residential Buildings
Market Size Floor space (m ²) Sales fossil heaters p.a.	  2,564 M 80,000	  767 M 23,000	  382 M 11,500
Installed base oil & gas heaters 10 years old or less 11 - 25 years old > 26 years old	 799 T 1,881 T 526 T	 231 T 543 T 152 T	 115 T 271 T 12 T
Market Demands	Space heating Space cooling Low OpEx "Green Standard" Easy Integration	Space heating Space cooling Low OpEx "Green Standard" Easy Integration Professional Project Mgmt. Low Temp. Process Heat	Space heating / cooling optional Warm water Low OpEx "Green Standard" Independence fm fossil fuels No Noise No Smoke (CO2 emissions) Easy Integration

Sources: German Chimney Sweeper Organization 2010, German Statistics Office, German Heat Pump Association, Geo-En Research

Geo-En has standardized solutions for each market segment, enabling standardized workflows and scalability

Investment Opportunity



Current Investors



Future

Funding until break-even secured.

Investors are cordially invited to participate in Geo-En 's international growth.

Geo-En: innovative heating and cooling



Geo-En, your partner for turn-key renewable energy solutions



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Geo-En employs geologists, system engineers, project managers and economists.

Geo-En works together with architects, heating and air conditioning (HVAC) experts, energy consultants, well constructors and equipment manufacturers. We are located in Berlin (Germany) and are running projects in Germany, Europe and overseas.

Geo-En 's experience is based on a knowledge base of more than 400 installations.

We look forward to your inquiry.



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Focus 7/2009: "... a new Technology that allows the use of geothermal energy in densely populated cities ..."



FAZ Sep/2009: "... the system provides cooling for buildings, normally consuming lots of energy, almost for free ..."