

Geothermal4PL

Wsparcie zrównoważonego rozwoju i wykorzystania płytkiej energii geotermalnej na terenie obszarów objętych programem Mieszkanie Plus w Polsce

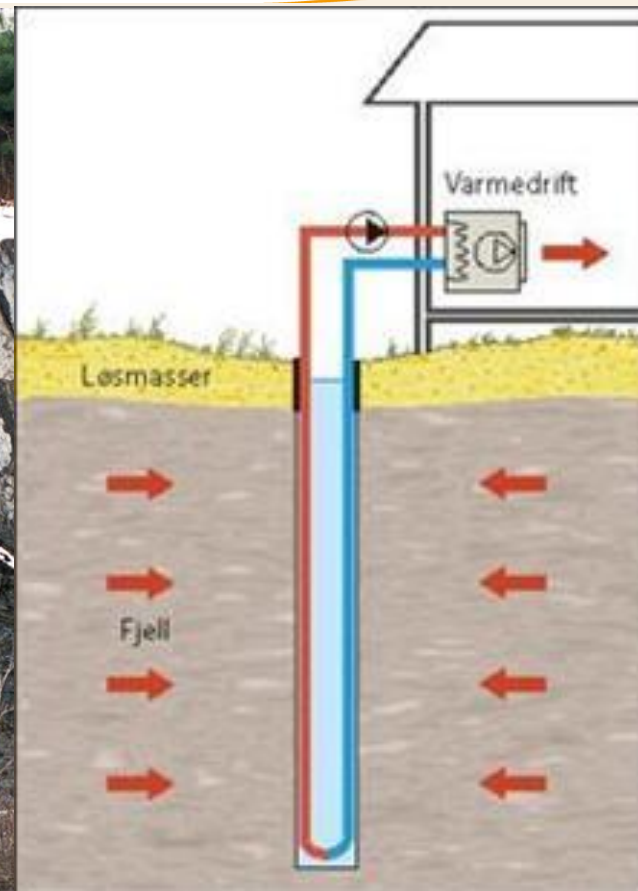
Państwowy Instytut Geologiczny – Państwowy Instytut Badawczy
Christian Michelsen Research AS
5-6.10.2017, Chęciny

Legal regulations for GSHP in Norway

Kirsti Midttomme
CMR



Norway comprise of
crystalline rocks with low
permeability and porosity





Norway

Who have the rights to the heat under my property ?

In Norway, the rights to geothermal heat or cold are still unclear

The first case in court will be principled and governing



Norway

Closed system Borehole Heat Exchangers

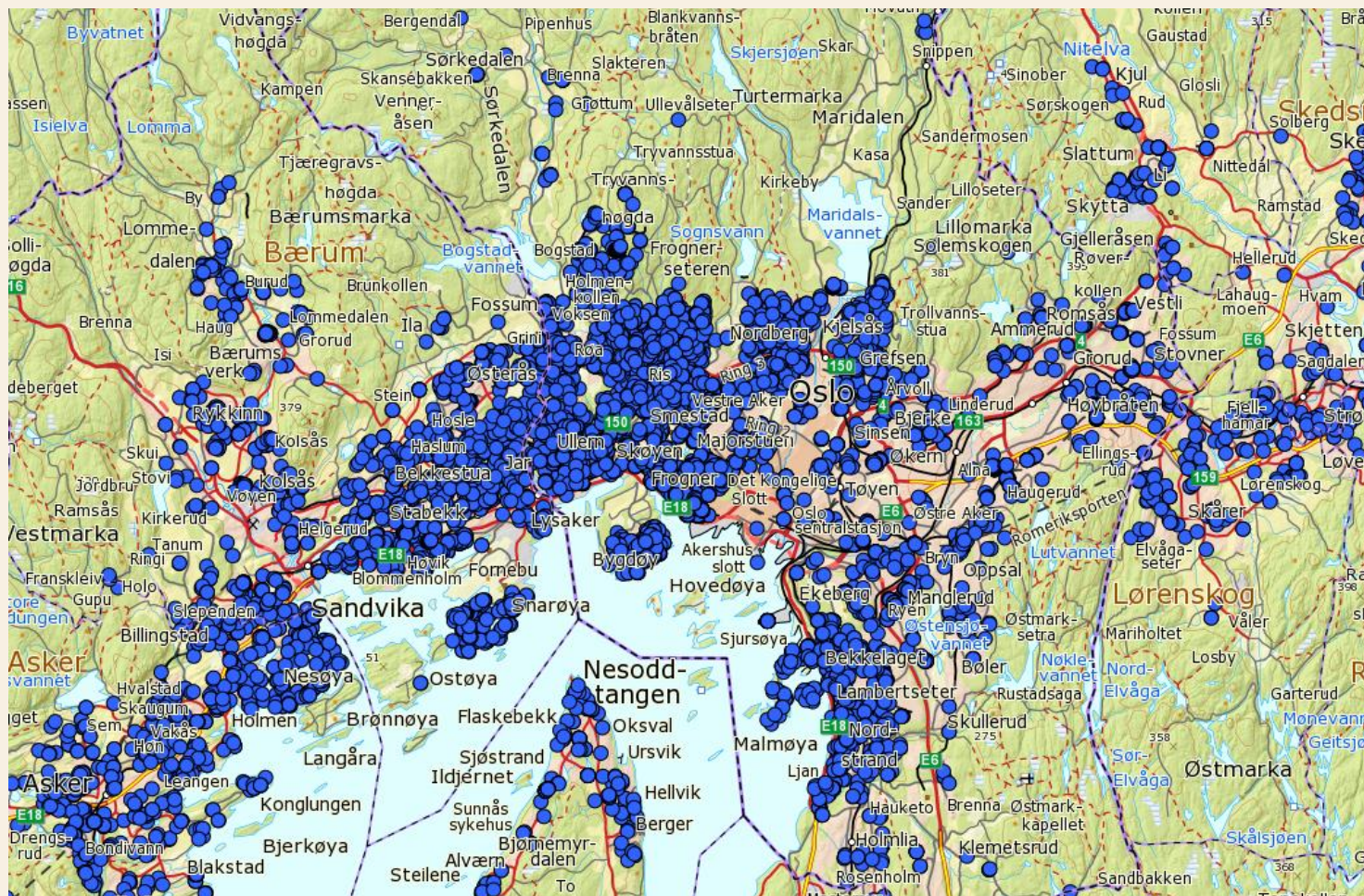
Planning and Building Act

- No prior approval is required, but following are required
 - Not cause damage or danger to the environment
 - No conflict with existing and planned infrastructure
 - Drilling report send to Geological Survey of Norway after drilling

Open system Direct use of groundwater


- Landowners are free to extract water for their households.
- For any water withdrawal that exceeds this, the landowner must apply to the Water and Energy authorities for license.
- The rate at which groundwater is withdrawn must be sustainable

BHEs registered in Oslo region




GRANADA - Nasjonal grunnvannsdatabase

Grunnvannspunkter - detalj



GRUNNVANNSDATABASEN



Fjellbrønn nr. 76845

LOKALISERING

Fylke
Kommune
Gårdsnummer
Bruksnummer
UTM sone
ØV-koordinater
NS-koordinater
Kartblad (1:50 000)
Stedfestningsmetode
Stedfestningsnøyaktighet

Localization

Borehole
information

BRØNNPARAMETERE

Boredato : 21.01.2013
Brukstype : Energi
Borings- / brønnrørmaterialer : Enkelthusholdning
Borings- / brønnrørlengde : 115 mm
Boring : Stål
Loddrett : 3.00

BRØNNLAG (FJELLBRØNN)

Dyp fra overflaten (meter)

FRA	TIL	EVT. VANNINNSLAG	SLAMFARGE	BERGART	ANDRE OPPLYSNINGER
0.00	1.50				Løsmasse: Jord
1.50	120.00				Grått, stabilt, ikke vann.

MÅLINGER

Ingen

ANNEN INFORMASJON

Borefirma : Kraft Energi og brønnboring AS
Borerens navn : Raymond
Borestedsadresse : Storveien 139a, 1621 Gresvik.

KONSULENTER / RAPPORTER / REFERANSER

Ingen

SPRENGNING / TRYKKING

Ingen



**Tusen takk for
oppmerksomheten**

**Thank you for your
attention**