

# ADX Energy Ltd

*Embracing the future of energy in Europe!*

*Good Oil Conference Perth - 8 September 2021*



*Shown above ADX owned Gaiselberg and Zistersdorf field production infrastructure in the Vienna Basin as well as a proximal wind farm*

**A transformational, European focussed energy company (ASX:ADX)**

# DISCLAIMER STATEMENT (1)



## Important Notice

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**Persons compiling information about Hydrocarbons.** Pursuant to the requirements of the ASX Listing Rule 5.31, the unaudited technical and reserves information contained in this presentation has been prepared under the supervision of Mr Paul Fink. Mr Fink is Technical Director of ADX Energy Ltd, is a qualified geophysicist with 23 years of technical, commercial and management experience in exploration for, appraisal and development of oil and gas resources. Mr. Fink has consented to the inclusion of this information in the form and context in which it appears. Mr. Fink is a member of the EAGE (European Association of Geoscientists & Engineers) and FIDIC (Federation of Consulting Engineers).

ERC Equipoise Pte Ltd (ERCE) has conducted an independent audit of the **Gaiselberg & Zistersdorf Oil Fields** developed Reserves and have previously consented to the inclusion of information specified as ERCE audited values in this presentation. ERCE is an independent London and Singapore based consultancy specialising in geoscience evaluation, engineering and economic assessment. The CPR has been prepared in accordance with the June 2018 SPE/WPC/AAPG/ SPEE/SEG/SPWLA/EAGE Petroleum Resources Management System (PRMS) as the standard for classification and reporting. ADX is not aware of any changes of economic assumptions, field operating costs, new information or technical data that materially affects the estimates announced on Reserves Reporting Date of 5/11/2020 for the **Gaiselberg & Zistersdorf Oil Fields**.

# DISCLAIMER STATEMENT (2)



## PRMS Reserves Classifications used in this Report

**Developed Reserves** are quantities expected to be recovered from existing wells and facilities.

*Developed Producing Reserves are expected to be recovered from completion intervals that are open and producing at the time of the estimate.*

*Developed Non-Producing Reserves include shut-in and behind-pipe reserves with minor costs to access.*

**Undeveloped Reserves** are quantities expected to be recovered through future significant investments.

A. **Proved Reserves (1P)** are those quantities of Petroleum that, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable from known reservoirs and under defined technical and commercial conditions. If deterministic methods are used, the term “reasonable certainty” is intended to express a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90% probability that the quantities actually recovered will equal or exceed the estimate.

B. **Probable Reserves** are those additional Reserves which analysis of geoscience and engineering data indicate are less likely to be recovered than Proved Reserves but more certain to be recovered than Possible Reserves. It is equally likely that actual remaining quantities recovered will be greater than or less than the sum of the estimated Proved plus Probable Reserves (2P). In this context, when probabilistic methods are used, there should be at least a 50% probability that the actual quantities recovered will equal or exceed the 2P estimate.

C. **Possible Reserves** are those additional Reserves that analysis of geoscience and engineering data suggest are less likely to be recoverable than Probable Reserves. The total quantities ultimately recovered from the project have a low probability to exceed the sum of Proved plus Probable plus Possible (3P) Reserves, which is equivalent to the high-estimate scenario. When probabilistic methods are used, there should be at least a 10% probability that the actual quantities recovered will equal or exceed the 3P estimate. Possible Reserves that are located outside of the 2P area (not upside quantities to the 2P scenario) may exist only when the commercial and technical maturity criteria have been met (that incorporate the Possible development scope). Standalone Possible Reserves must reference a commercial 2P project.

**Contingent Resources:** those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations but, for which the applied project(s) are not yet considered mature enough for commercial development due to one or more contingencies.

1C, 2C, 3C Estimates: in a probabilistic resource size distribution these are the P90 (90% probability), P50, and P10, respectively, for individual opportunities. Totals are by arithmetic summation as recommended under PRMS guidelines. This results in a conservative low case total and optimistic high case total.

**Prospective Resources:** those estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) related to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further explorations appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons. “Low” means a conservative estimate of the quantity that will actually be recovered from the accumulation by the project; there is a 90% probability (P90) that the quantity actually recovered will equal or exceed the best estimate. “Best” means a best estimate of the quantity that will actually be recovered from the accumulation by the project; there is a 50% probability (P50) that the quantity actually recovered will equal or exceed the best estimate. “High” means an optimistic estimate of the quantity that will actually be recovered from the accumulation by the project; there is a 10% probability (P10) that the quantity actually recovered will equal or exceed the best estimate.

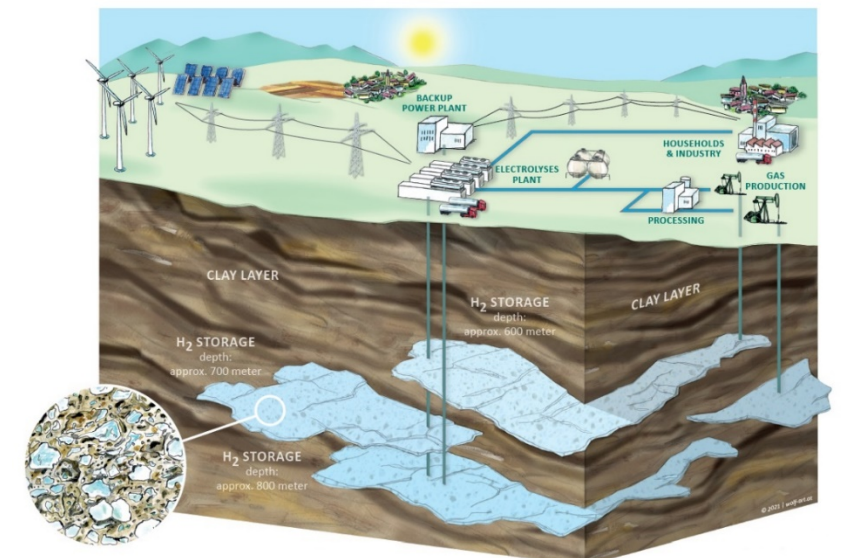
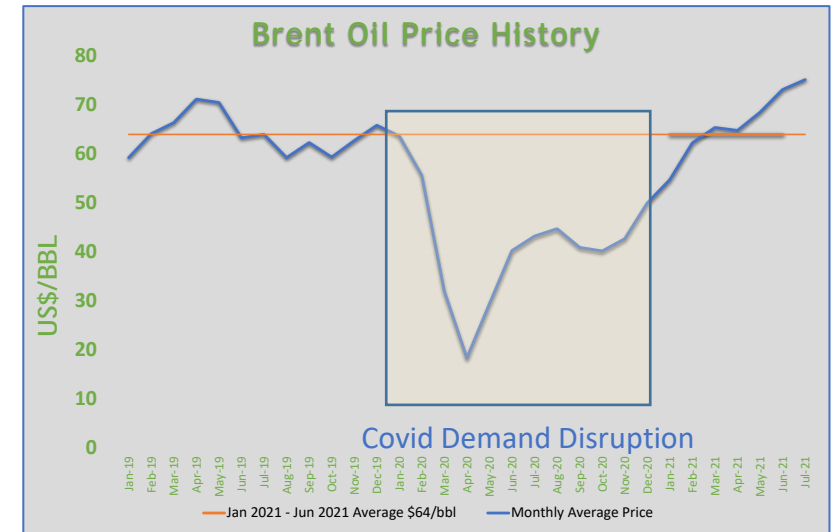
# What will the future of Energy look like?

## Immediate outlook for oil and gas

- » Looks bright for oil with likely supply constraints
- » Being in a supportive jurisdiction is critical
- » ESG will become increasingly important

## Transition to green energy is good business

- » Asset redeployment adds value and extends life
- » Underground reservoirs provide multiple green energy solutions
  - Hydrogen storage, geothermal, CO<sub>2</sub> storage, underground methanisation
- » Geography and geology important
  - Reservoir characteristics, proximity to green energy & export infrastructure
- » Political and Financial Support (excellent in EU)
  - Subsidies and loans for green projects are big enablers
  - Rising cost of carbon is a strong motivation



*“Oil and gas companies can be the solution not the problem”*

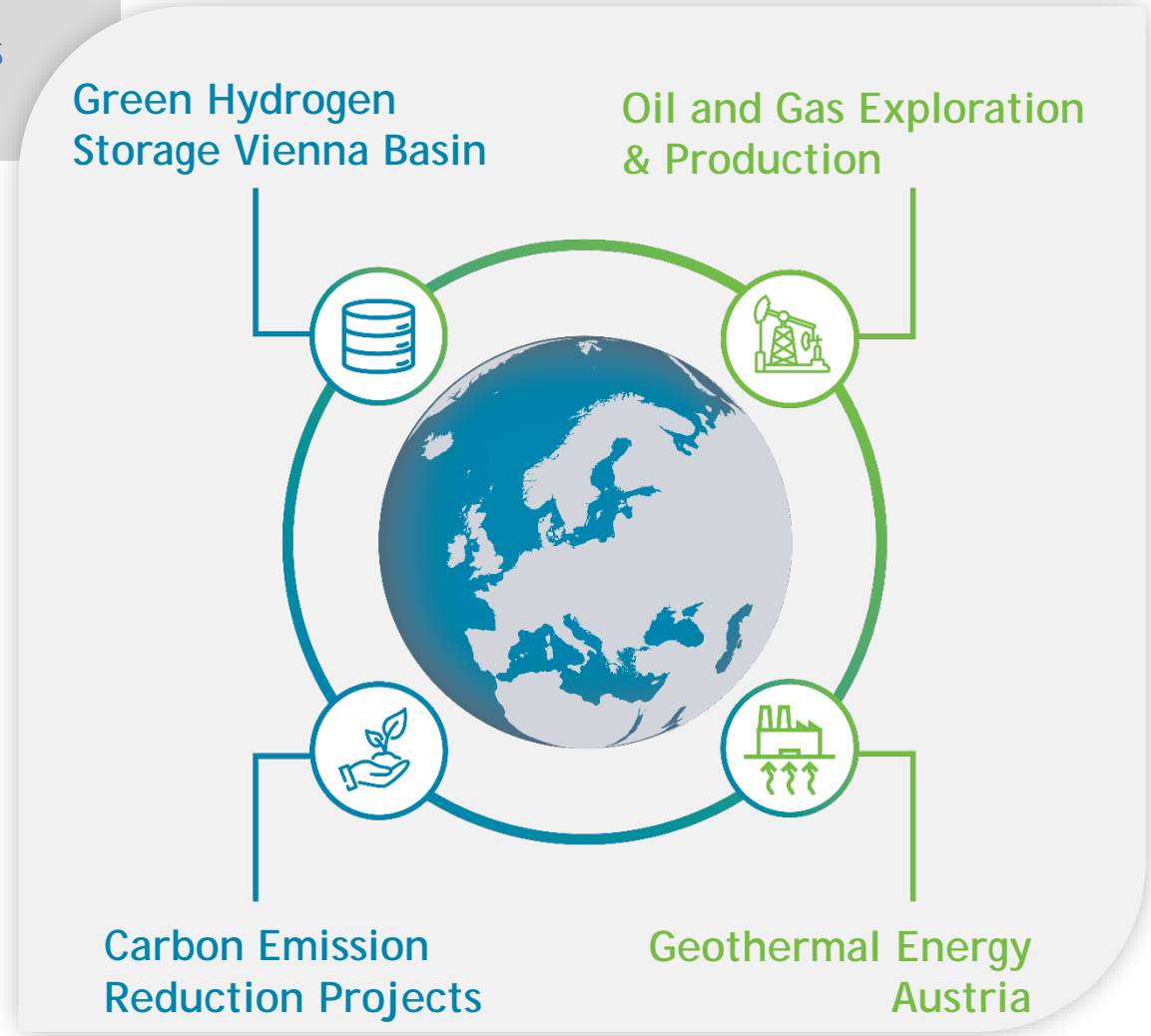
# Strategic focus

Our focus is on becoming a leading European energy producer and the provider of green energy solutions for a low carbon society

ADX operates energy projects in Austria, Romania and Italy

- » We produce safe, long life, low emissions oil and gas with excellent upside from exploration to fund growth
- » We are redeploying our assets, people and skills to zero carbon energy production including:
  - Hydrogen (H<sub>2</sub>) production and storage project, and
  - Novel geothermal pilot project with Siemens Energy
- » We are pursuing other intelligent technological solutions and strategic partnerships to secure other synergistic green energy projects

By investing oil and gas cash flows into long term, low carbon energy assets we are enhancing the value of both asset classes



# Asset & Corporate Overview

## Austria (Operator, 100% equity)

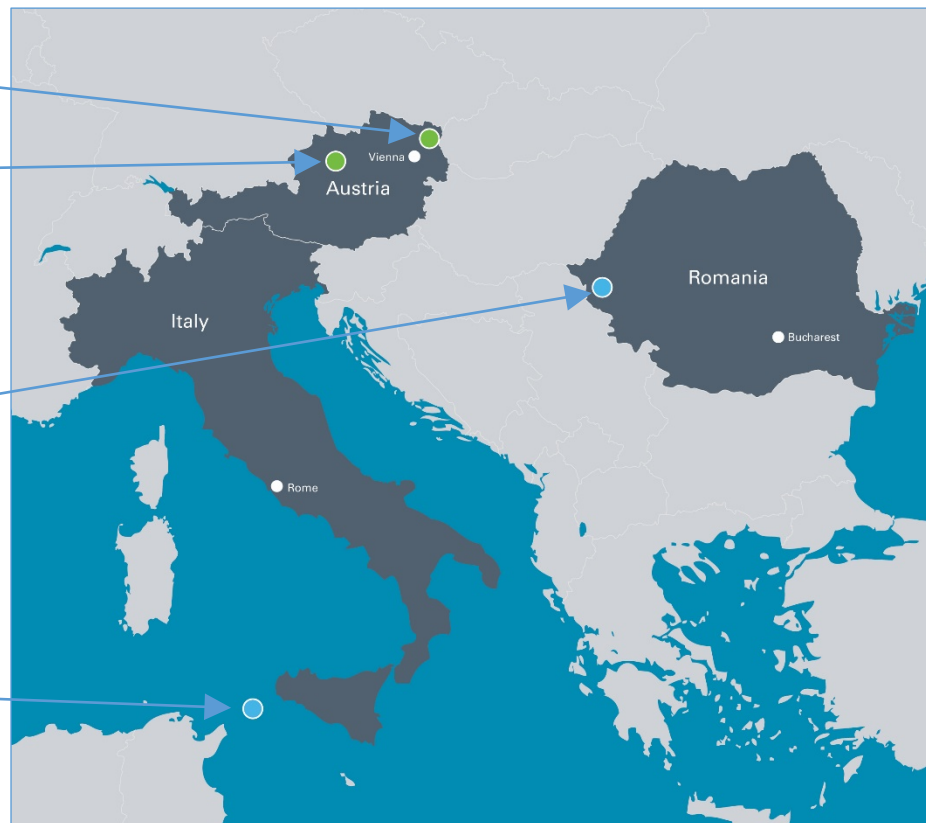
348 BOEPD in Q2 2021  
 H<sub>2</sub> production & storage project  
 58 MMBOE prospective resource [note 1](#)  
 Geothermal pilot project (Siemens)

## Romania (Operator, 49.2% equity)

Production & exploration licenses  
 Appraisal & exploration opportunities

## Italy (Operator, 100% equity)

Oil field redevelopment project  
 34.1 MMBBL (2C) Resource (CPR) [note 2](#)  
 Moratorium being lifted



## Financial information

Share price (7/9/2021) **A\$0.007**

Number of shares **2,658 m**  
 Number of Options **211 m**

Market capitalisation **A\$18.6 m**

Cash (30/6/2021) **A\$4.2 m**

Loan Notes (unsecured) and Austrian Loans, net of secured cash (30/6/2021) **A\$4.2 m**  
 Minority Interest in Subsidiary (30/6/2021) **A\$ 8.6 m**

Enterprise value **A\$27.2 m**

No. of Shareholders **3,315**

*European focussed production, exploration and renewable energy assets*

Note 1: Prospective resources reporting date on 30/3/21

Note 2: Contingent Resources Reporting Date for Nilde 29/3/2018

# Summary of recent highlights

## *Production activities*

**66% Increase in hedged oil price position**

**35% Increase oil and gas production for quarter**

## *Exploration activities*

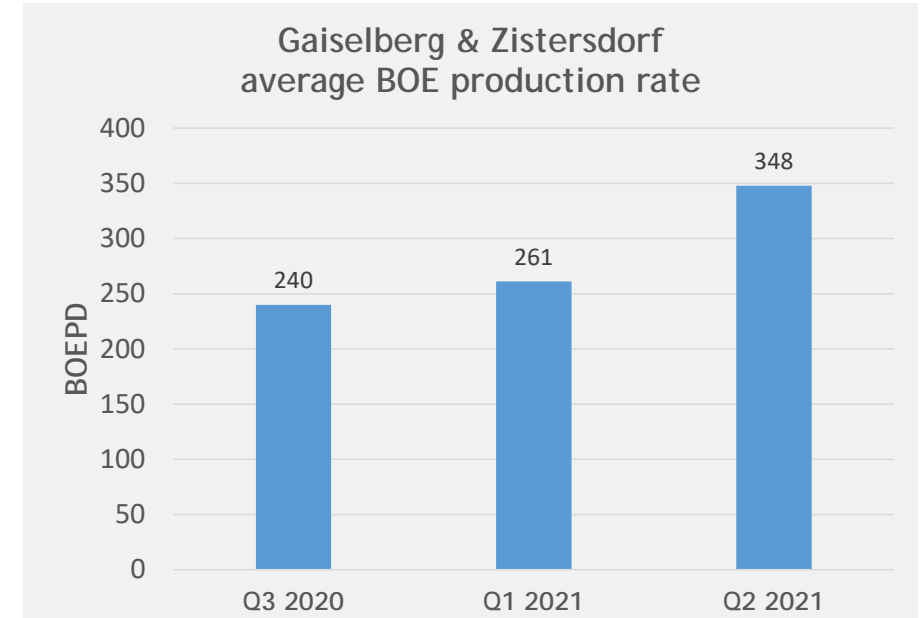
**Upper Austria exploration award**

**Preparation for drilling in Upper Austria**

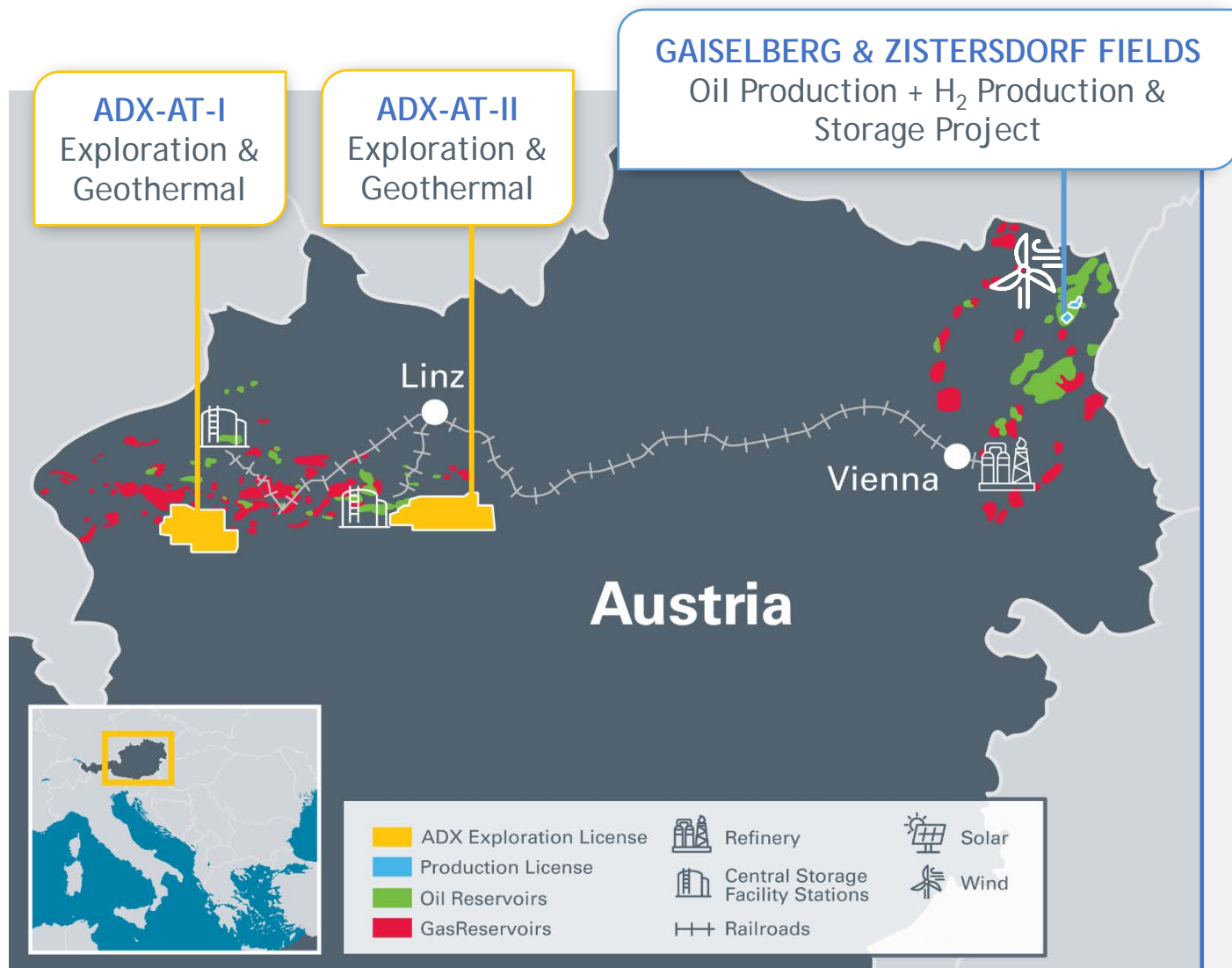
## *Renewable energy developments*

**Vienna Basin Hydrogen project Initiation**

**Geothermal pilot Project LOI with Siemens**



# Austria conventional & green energy



## A rare and unique position for conventional and green energy projects

- Break into a 75-year energy duopoly
- World-class oil & gas industry ~1 billion barrels of oil and 2.7 Tcf of gas to date
- Excellent oil & gas and green energy infrastructure
- Exceptional access to 3D seismic geotechnical data
- ADX is one of 3 production and one of 2 exploration operators
- Capable & experienced local team
- Government funding and regulatory support



# Gaiselberg & Zistersdorf Fields (Vienna Basin)

## Summary of asset attributes

- 100% equity purchased from RAG Austria AG (RAG) in December 2019
- Low decline long lived production (currently 320 BOEPD)
- Low emission production from state of the art facilities
- Ownership of 13.7 hectares agricultural land (vineyards)
- High value sweet crude oil (33° API - 7.9% discount to Brent)
- Depleted gas reservoirs suitable for Hydrogen storage



Multilayer reservoir producing since 1935

0.9 mmbbl 2P developed reserves  
*Note 1*

Pipeline to Schwechat refinery Vienna

34 wells, 20 producers, 14 injectors

4,000 boepd production capacity

*Note 1: Reserves Reporting Date (Independently Audited) : Gaiselberg and Zistersdorf in Austria 5/11/2020*

# Upper Austria - Exploration Overview



Agreements for **2 exploration, production and gas storage concessions** (AGS) in Upper Austria signed on 08 January 2021, 4 x 4 years period, highly efficient licensing system



**3,650 km<sup>2</sup> of modern 3D seismic data coverage** in the prolific Molasse foreland basin (220 mmbob produced in Upper Austria alone)



**Shallow (<1,000 m) to moderate (<3,000 m) drill depths and excellent reservoir productivity (~1,000 bopd) and proven geothermal potential**

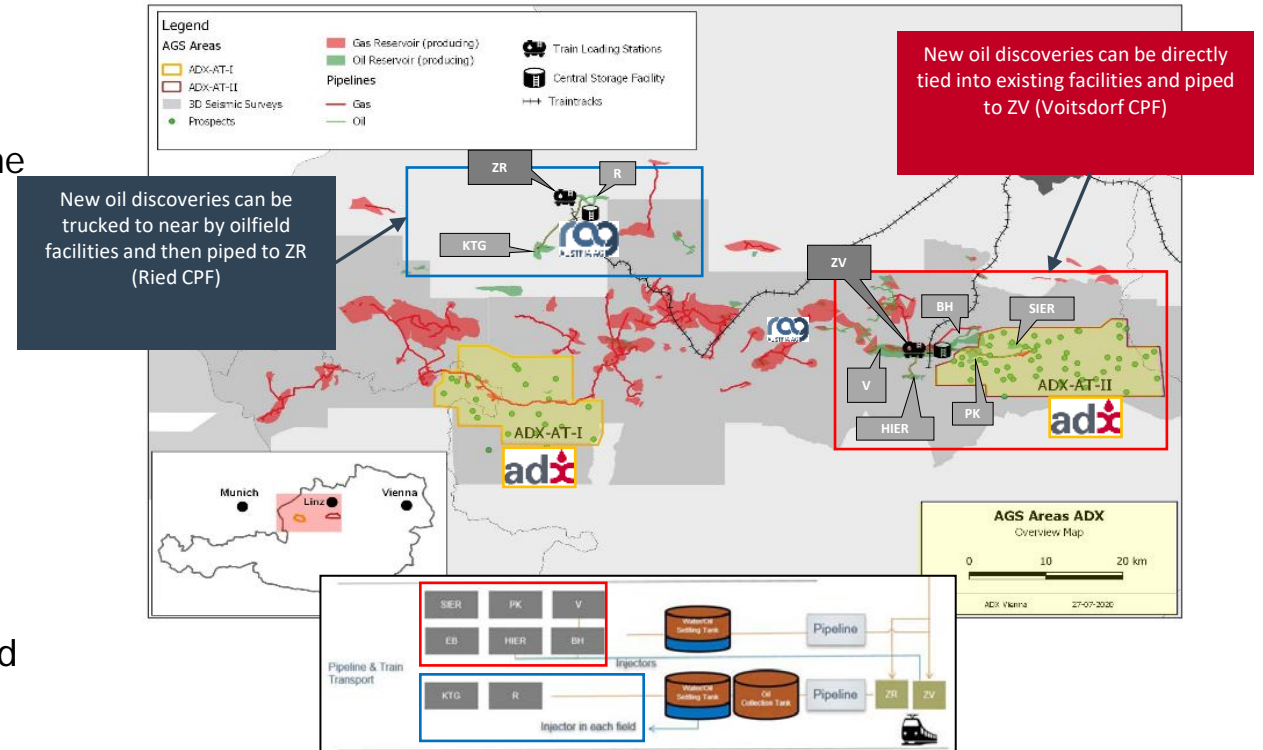


Targets with **balanced oil and gas mix** and very large upside and **hydrogen storage potential**



Portfolio **close to infrastructure** with access on agreed terms allowing rapid and **cost effective monetisation**

Map of ADX licenses and infrastructure



**81**  
leads, prospects and appraisal targets

**48%**  
historical exploration success ratio

**58 mmboe<sup>1</sup>**  
best technical resources for 10 matured expl. prospects

**2**  
Stand out Prospects ready to drill with large upside

**< 0.3 mmboe**  
of recoverable resources generate positive economics (low break-even)

<sup>1</sup>note : Original Resources Reporting Date: Upper Austria Exploration 30/11/2020, Resources revised from 42 mmboe on 30/11/2020 to 58 mmboe on 30/3/21

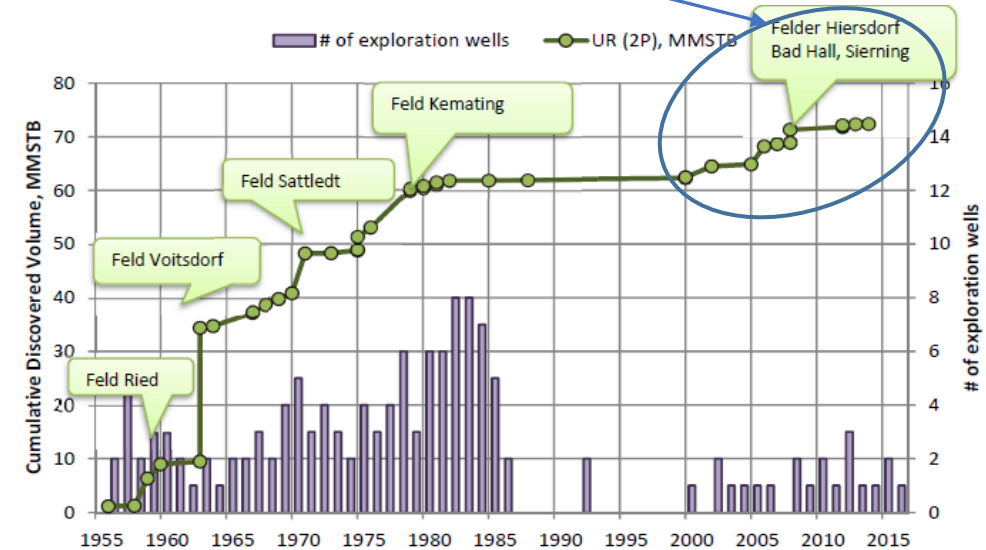
# Upper Austria - Drill ready portfolio

Two stand out prospects with follow up opportunities mapped on 3D seismic

|                                  | fluid     | Map Name | Best Technical Recoverable [mmboe] | well TD [m TVD] | Exploration Well Cost [MM Euro] |
|----------------------------------|-----------|----------|------------------------------------|-----------------|---------------------------------|
| <b>Σ HIGH IMPACT EXPLORATION</b> |           |          |                                    |                 |                                 |
| OHO                              | gas (oil) | OHO      | 20,4                               | 4 365           | 6,6                             |
| ZELL AM MOOS                     | gas (oil) | ZAM      | 14,6                               | 5 400           | 7,3                             |
| <b>Σ TREND EXPLORATION</b>       |           |          |                                    |                 |                                 |
| LICHTENBERG                      | gas       | LIC      | 2,7                                | 3 010           | 3,6                             |
| IRRSDORF                         | gas       | IRR      | 3,0                                | 2 950           | 2,9                             |
| TERNBERG                         | oil       | TER      | 3,2                                | 2 890           | 5,0                             |
| WOLFSGRUB                        | oil       | WOL      | 2,2                                | 3 150           | 5,1                             |
| PERGERN                          | oil       | PER      | 2,5                                | 1 790           | 2,2                             |
| ANSHOF                           | oil       | ANS      | 6,6                                | 2 250           | 1,8                             |
| ARD (LP gas only)                | gas       | ARD-BR   | 2,2                                | 2 700           | 2,1                             |
| SIERNING IMB                     | gas       | SIE      | 1,0                                | 1 100           | 1,4                             |
| <b>Σ APPRAISAL / SIDE TRACK</b>  |           |          |                                    |                 |                                 |
| STEYR 3 (APPR)                   | gas       | STE      | 0,5                                | 1 270           | 1,5                             |
| BAD HALL - LIND (appr.)          | oil       | LIN      | 0,8                                | 2 150           | 1,8                             |
| BAD HALL - STEIN (appr.)         | oil       | SGB      | 0,8                                | 2 200           | 1,8                             |
| BRUNN (sidetrack)                | gas       | ARD-BR   | 0,8                                | 2 100           | 1,2                             |
| KLE 1A (Sidetrack)               | oil       | KLE      | 0,6                                | 2 260           | 1,3                             |
| TOTAL EXPLORATION [mmboe]        |           |          | 58                                 |                 |                                 |
| TOTAL [mmboe]                    |           |          | 62                                 |                 |                                 |



Recent exploration success rate utilising 3D seismic is 48%

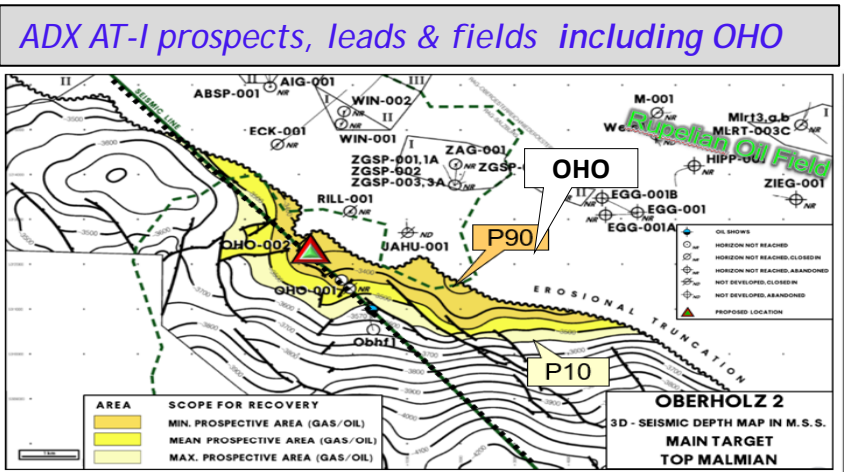
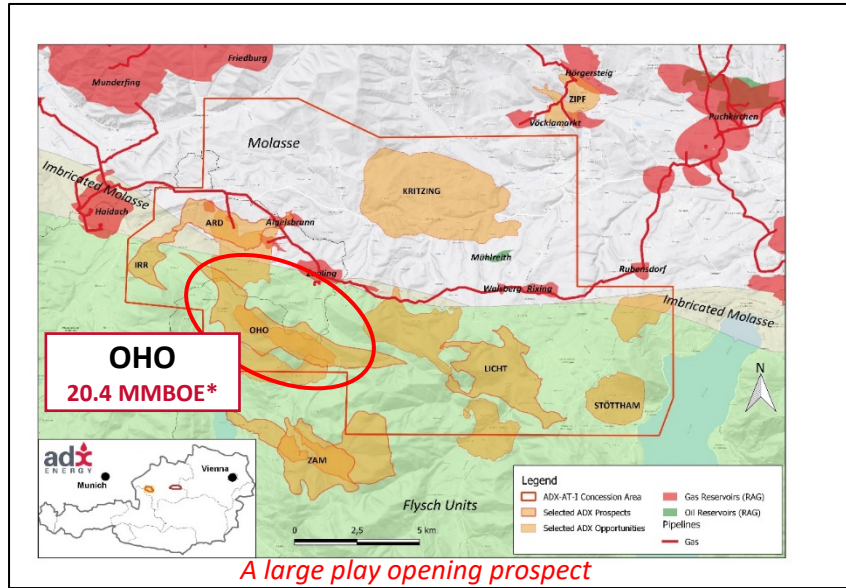


Preparations for drilling the Anshof #1 well are advanced - rig contracting, long lead items, well location and regulatory. Year end 2021 spud planned

Note : Original Resources Reporting Date: Upper Austria Exploration 30/11/2020, Resources revised from 42 mmboe on 30/11/2020 to 58 mmboe on 30/3/21

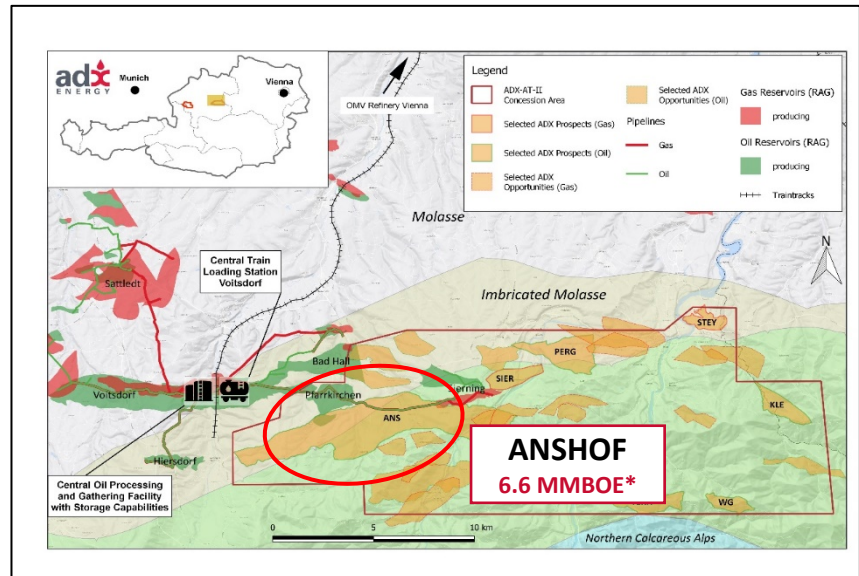
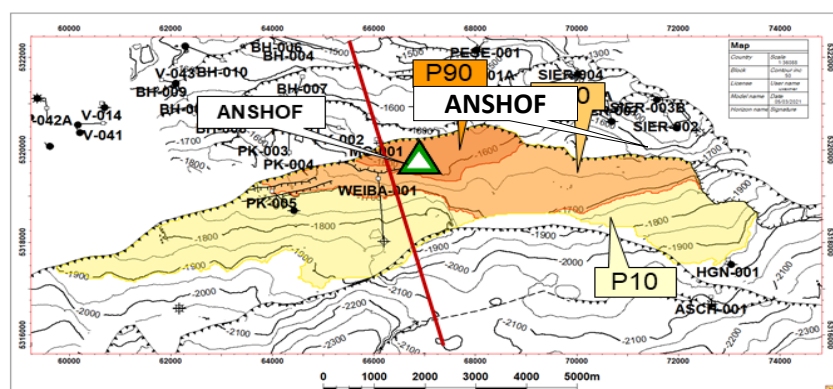
# Upper Austria - Drill ready prospects

Two stand out prospects with follow up opportunities mapped on 3D seismic



“OHO”  
a large play  
opening  
prospect  
with multiple  
follow ups

## ADX AT-II prospects, leads & fields including Anshof



“Anshof”  
a low risk  
prospect close to  
infrastructure  
multiple exploration  
& appraisal  
follow ups

Note : Original Resources Reporting Date: Upper Austria Exploration 30/11/2020, Resources revised from 42 mmboe on 30/11/2020 to 58 mmboe on 30/3/21, \* Best Technical Prospective Resources

# Vienna Basin H<sub>2</sub> production and storage

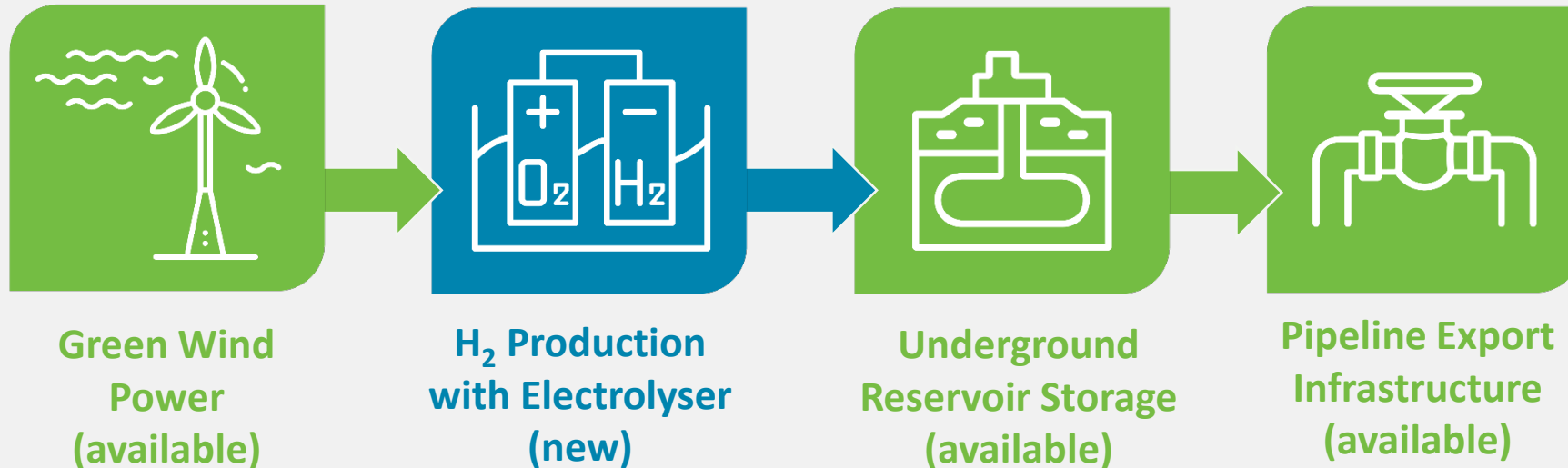
Utilising proven underground storage reservoirs at our oil field

## Phase 1

**Pilot Project** to demonstrate viability and position ADX in the **Green H<sub>2</sub>** value chain

## Phase 2

**Project Upscaling** to Commercial Scale with increasing market demand for **Green H<sub>2</sub>**



*“Availability of all the critical project elements increases project certainty”*

# Vienna Basin H<sub>2</sub> production and storage



## Great Fundamentals

- » Oversupply of green power in summer to generate H<sub>2</sub>
- » Store produced H<sub>2</sub> in depleted ADX reservoirs
- » Low cost and high quality water feedstock for H<sub>2</sub> electrolysis
- » Sell H<sub>2</sub> in winter at premium pricing
- » Store and sell O<sub>2</sub> into local market



## Compelling Success Factors

- » Multiple sources of wind power near to ADX fields
- » Economical, industrial scale storage capacity
- » Delivery of H<sub>2</sub> into existing methane pipeline system
- » Vienna hydrogen hub and EU hydrogen pipeline network planned for mid 2020's



## Austrian & EU Policy Support

- » Austrian policy to increase renewable energy by factor 6 by 2030
- » Increasing funding available on favourable terms for renewable projects
- » Large EU subsidies for hydrogen projects

Wind Park close to Zistersdorf



Gaiselberg & Zistersdorf fields



# Vienna Basin H<sub>2</sub> production and storage

## A cost effective, safe, large scale energy storage solution

### Area

The subsurface hydrogen storage reservoir (“sponge”) is approx. 20 hectares in area and 10 metres thick, i.e. the size of 30 soccer fields or a bit larger than the London Serpentine Lake, Hyde Park

On the surface only a few well pad areas as in the picture below are required. That means that only a few hundred square meters are needed

### Energy

ADX can store in one large hydrogen underground reservoir approx. 500 times the energy - equivalent of the largest Tesla energy storage Mega-Pack (approx. 200 MWh)

Alternatively, our underground hydrogen storage solution could supply 20,000 households with electric energy equivalent for an entire year

### Cost

It costs Tesla approx. € 150 Million to build their “giant” 200 MWh battery storage. ADX can build the subsurface energy storage facility for a tenth of the Tesla battery cost and **2,500 times cheaper** on an energy equivalent basis

As the price of electrolysis comes down, this will be a much more cost efficient way to store energy, with a lot less valuable land required for the facility

Large scale energy storage will be needed for the green energy transition to succeed



London, Hyde Park Serpentine Lake area = area of H<sub>2</sub> underground reservoirs (sponge)



Tesla Battery Storage, Australia, needs 10,000 m<sup>2</sup> of land



ADX well site area, needs 100 m<sup>2</sup> of land

# Geothermal pilot project

A ground breaking Pilot Project with Siemens Energy and RED Drilling to evaluate a highly efficient new geothermal power generation technology

## Roles of Parties

- ADX responsible for licensing, geological analysis, planning, subsurface engineering and execution
- Siemens Energy to provide novel power generation technology with 6 times higher efficiency than conventional geothermal plants
- RED to provide drilling and well work services

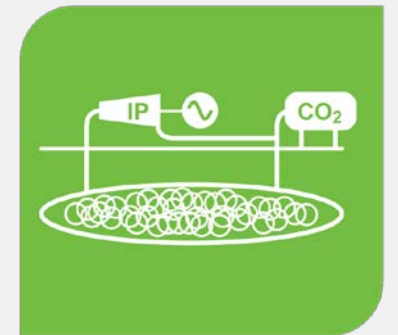
## Benefits for ADX

- Potential deployment in ADX Upper Austria acreage where there is proven geothermal potential as well as other European onshore locations
- Relationship development and collaboration with Siemens and RED
- Develop skills and experience in geothermal power project development

*Goal to deploy Siemen's technology at commercial scale in areas with a high geothermal gradient such as the Pannonian basin of Austria, Hungary and Romania where ADX has experience*



Hydrocarbon  
Production Phase



Geothermal Power  
Phase



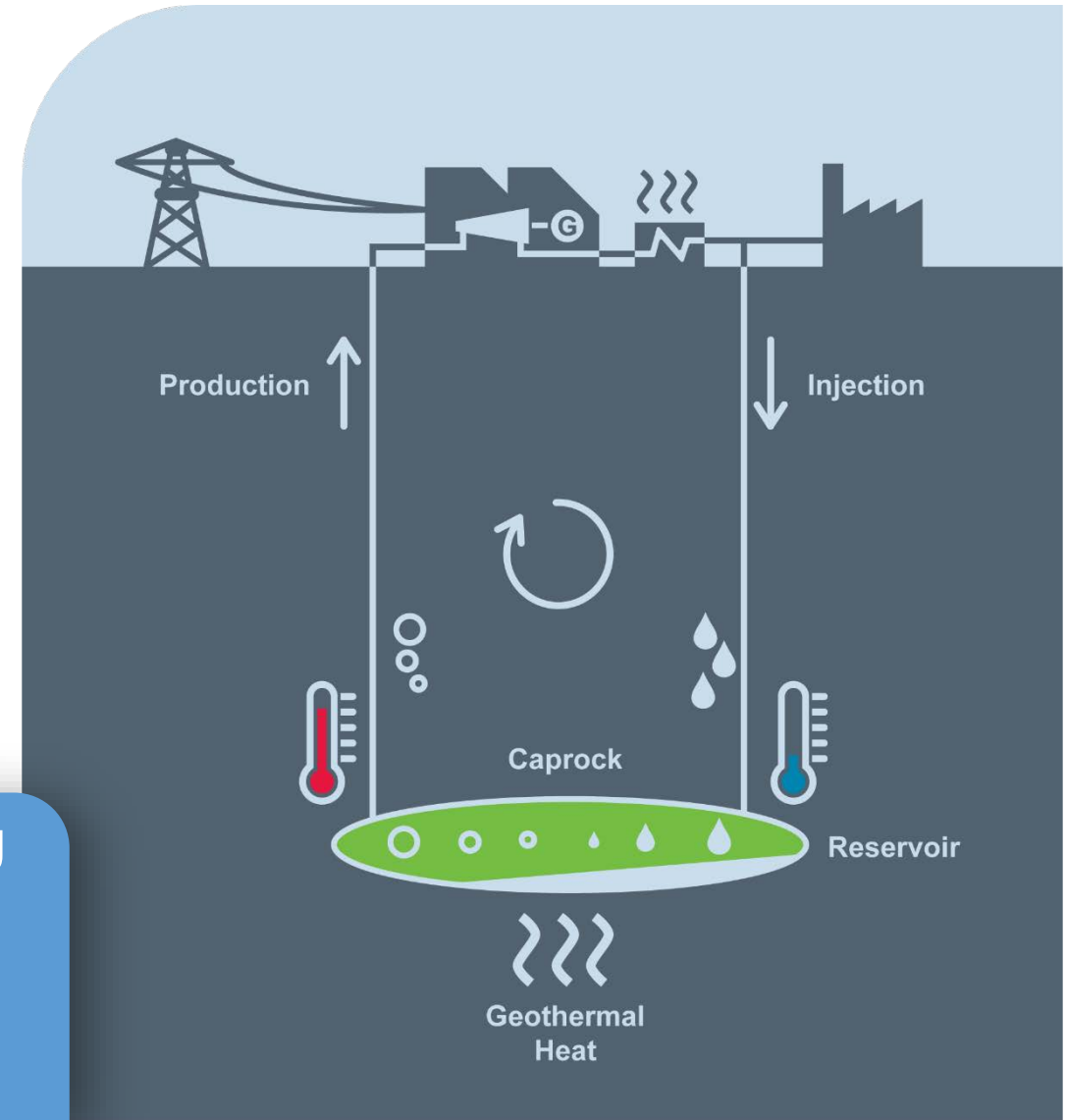
# Geothermal energy project potential

## Potential for Geothermal Energy in Austria and Central Europe

- Proven geothermal reservoirs in Upper Austria
- Constant 24/7 energy production
- Siemens technology offer a 6 fold increase in efficiency
- Geothermal industry well supported in Germany
  - proximal to ADX acreage (same reservoir trend)
  - Large untapped potential in Austria
  - Growing demand for town heating and industry

Australian investor experience has been disappointing

- Deep expensive wells
- Long distances from demand
- Unproven reservoirs



# 2021 forecast activities

## Vienna Basin Production

Enhance production, reserves and cash flow  
Reserves review results

## Upper Austria Exploration

Anshof prospect drilling preparations underway  
Expand acreage for HC's and geothermal

## Zero Carbon Energy Projects

Vienna Basin Hydrogen project formation  
Geothermal pilot project execution



*“A blend of compatible hydrocarbon and green energy production opportunities”*

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