

# ADX Energy Ltd – Webinar Update

### **Upper Austria Appraisal & Exploration License Expansion**

Presented by: ADX Austrian Team Date: 8 December 2020



A European focussed energy producer (ASX:ADX)





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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 release has been prepared under the supervision of Mr Paul Fink. Mr Fink is Technical Director of ADX Energy Limited, 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 consented to the inclusion of information specified as ERCE audited values in this release. 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.



### **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 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 the best estimate.

# IMMEDIATE PRIORITIES FOR AUSTRIAN EXPANSION



### 1) Gaiselberg & Zistersdorf Asset Enhancement

- Pursue behind pipe potential with increasing oil price
- New infill reserves and appraisal opportunities using new reprocessed 3D data set.
- Pursue H2 storage opportunities with wind power generators.

Leverage asset position – life extension & value development

- 2) Upper Austria Appraisal & Exploration Program
- Drill ready appraisal & exploration prospect inventory
- Choose first drilling candidates and initiate immediate licensing for drilling
- Incorporate geothermal exploration into program
- Pursue farmout discussions with a view to drilling Q3 2021

Positioned for activity - finalise farm-outs and plan drilling

- 3) Production asset opportunities
- Well placed in terms of knowledge and skills
- Highly complimentary opportunities available
- Operating credentials will be important.

Achieve critical mass and acceleration of growth

- 4) Source new funding for growth
- Farmouts for exploration
- Acquisition finance for production assets
- New equity sources in sympathetic markets

Access new sources of funding and investor support

Gaiselberg & Zistersdorf Production





"Asset position, new data, local knowledge and relationships enabling transformational growth"

### NEW APPRAISAL & EXPLORATION - MOLASSE BASIN







### **UPPER AUSTRIA – GROWTH PROGRAM**



# AUSTRIA IS A RARE BREAK THROUGH OPPORTUNITY



### A TWO COMPANY GAME FOR OVER HALF A CENTURY

World Class Oil Province ~1 billion barrels oil and 2.7 Tcf gas 0.8 Tcf gas & 70 mmbo from Upper Austrian Molasse zone alone Excellent Infrastructure for Oil and Gas (European Gas Hub and 230,000 BPD refinery) High Value Hydrocarbons with Stable Legal and License System



### A Unique Strategic Position

- 100% equity in operated, production asset (310 BOEPD) in Vienna Basin
- Boots on the ground
- Offered prospective appraisal, exploration and geothermal acreage (Upper Austria)
- 3rdProducer & 2ndExplorer in country

### Multiple growth pathways

- Long life production with reserves growth
- Production acquisition opportunities
- Exclusive data set adds value and shortens investment cycle (Euro 90 million geotechnical data)
- Near field appraisal and exploration position
- Complimentary renewable Hydrogen and CO<sub>2</sub> capture

Goal is 2,000 BOEPD in 2021

# UPPER AUSTRIA EXPLORATION LICENSE SUMMARY







Historical exploration success ratio of 48%, **several** independent play types Balanced portfolio low risk appraisal to high impact "company maker" prospects, **3D Seismic** covered, drill sites partly ready Proven **geothermal** sweet spot area and hydrogen storage possibilities

Infrastructure access contract with RAG being finalized



### **Recent exploration success rate utilising 3D seismic is 48%**





# DRILL READY 3D SEISMIC MATURED PORTFOLIO





**42 mmboe** Best Note Technical Resources for 10 matured Exploration prospects Excellent reservoir productivity (+1000 bopd); shallow (< 1000m) to moderate (< 3000m) drill depths Balanced oil & gas mix with very large gas upside

Average prospect risk in line with historical success rate of 48%

Note : Resources Reporting Date: Upper Austria Exploration 30/11/2020

# ATTRACTIVE TERMS & EXCELLENT INFRASTRUCTURE





Injector in each field

Transport



- Maximum total exploration period of 16 years without relinquishment
- Favourable fiscal terms with 15% to max. 20% royalty (max. 22% for gas) and low exploration commitment (minimum financial work commitment ca. 2.2 MM Euro for the first 4 years)
- New Oil discoveries in the Eastern ADX AT II License can be directly tied into existing facilities (red box) and piped to ZV (Voitsdorf Central Production facility).
- New Oil discoveries in gas dominated Western ADX AT – II can be trucked a short distance to near by oil field facilities and then piped to RZ (Ried Central Production facility, blue box)
- Light Sweet Crude, 33 API

Access to infrastructure and favourable offtake terms ensure very low economic field size threshold

Pipeline

# ATTRACTIVE OIL PROSPECT ECONOMICS





Robust economics across all resource sizes

> Attractive and robust economics even at low oil prices due to infrastructure access

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**RAG** producing oil fields

**ADX appraisal & exploration projects** 

Extensive prospect inventory developed with state of the art 3D seismic and years of basin experience.

### "A privileged position on day 1"

- Acreage contains several appraisal and on trend exploration opportunities proximal to the central RAG Voitsdorf oil facilities.
- A new structural concept mapped on PSDM 3D seismic resulted in improved understanding of RAG oilfields extending into the ADX licenses. Good quality Eocene sandstone reservoirs around 1700metrs drilling depth.
- Three excellent appraisal prospects shown are certain to be extensions of producing RAG oil fields : *low risk, low cost; proven high productivity (1000 bopd/well)*
- The deeper Cenomanian sandstones are proven targets and offer upside potential.

# DUAL GEOTHERMAL AND HYDROCARBON TARGETS



### Symbol for proven Jurassic highly fractured Geothermal & Hydrocarbon Reservoir



# DUAL GEOTHERMAL – HYDROCARBON PROSPECT OHO



- The Molasse Basin is a proven highly active geothermal growth area with outstanding historic commercial success rates for oil & gas exploration (approx. 48%) and above 90% success rate for geothermal wells.
- The combination of a high geothermal gradient and excellent proven reservoirs provide alternative commercialization opportunities for hydrocarbon exploration wells. The ADX prospect portfolio provides for both district heating and power generation opportunities.
- OHO "COMPANY MAKER" PROSPECT: 13 mmboe Best Technical Note:
- Risk is limited to structural definition with hydrocarbon charge, high productivity reservoir and seal all proven by downdip well
- Proven Jurassic geothermal reservoir with high flow rates and temperature – ELECTRICITY GENERATION

A proven geothermal province with commercialisation opportunities adds complementary growth potential Note : Resources Reporting Date: Upper Austria Exploration 30/11/2020

# EXAMPLE OF ON TREND EXPLORATION POTENTIAL





- Low medium risk prospect only a few km SE of the Haidach discovery analogy, now the largest gas storage field in Austria, operated by RAG.
- The ADX prospect is well defined by 3D seismic & AVO and is expected to contain ca. 20 bscf of gas (best case, P50) Note. Risk is limited to reservoir quality at 2280 meters TVD, a much smaller resource is economic due to location within a few hundred meters of gas infrastructure

# **UPPER AUSTRIA - INVESTMENT ATTRIBUTES**



- Rapid licensing and long established oil and gas culture ensures regulatory and community support
- Experienced technical and operations team ready to go on the ground that know the area
- Drill ready portfolio (*company makers and low risk low cost tie ins*) based on 3D seismic with high historical success rate (48%).
- Exceptional seismic and drilling data base enables immediate exploration activity (saving years and tens of millions of Euro)
- High productivity reservoirs, low to moderate drill depths, high value hydrocarbons and attractive royalty regime results in rapid paybacks and high returns
- Proximity to RAG infrastructure reduces commercial risk, time to cashflow and increases economic viability
- Proven geothermal prospectivity and identified commercialisation pathways provide complimentary growth potential
- Ability to expand exploration footprint with access to data and further opportunities to build portfolio.
- Potential masters of the basin







# ZISTERSDORF FIELDS – NEW GROWTH POTENTIAL



- 100% Equity purchased from RAG Austria AG (RAG) in December 2019
- Excellent infrastructure, low emission production from state of the art facilities & 13.7 hectares agricultural land.
- High value sweet crude oil (25 API 7.9% discount to Brent)
- 310 boepd stable production, low decline, low royalty
- Large appraisal potential in Flysch proven oil & gas reservoirs





### ZISTERSDORF FIELD – NEW 3D SEISMIC TECHNOLOGY



The proven & producing Flysch reservoir layers can now be mapped with confidence on 3D seismic



- The large Flysch OIIP potential can now be targeted with precisely located slanted and horizontal wells for the first time based on 3D seismic data.
- Seismic definition enables drilling along fracture corridors with expected higher flow rates.
- Flysch wells can be extended for additional production into the main producing reservoirs of the Neogene (i.e. Badenian & Sarmatian)

The very large Flysch oil resource is underdeveloped because it was hard to "see" on seismic before 17

### THANK YOU!



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