

**Project Title:**

Methanol PLANT LENDAVA Slovenia

**Type of deal:**

Legal Entity Deal and Assed Deal

**Methanol Plant Lendava OVERVIEW**

**Three integrated units:**

- Unit 100 – Reforming Methane (CH<sub>4</sub>) and Steam (H<sub>2</sub>O) into Carbon Monoxide (CO), Carbon Dioxide (CO<sub>2</sub>), and Hydrogen (H<sub>2</sub>)
- Unit 200 – Methanol Synthesis
- Unit 300 – Distillation (99.96% methanol purity)

**Sector:**

Energy

**Seller Agent:**

Netbid GmbH, Vienna Austria



# Short business description:

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**NETBID**  
Angermann Machinery & Equipment

## Capacities of the plant

Plant capacity – existing daily capacity with current technology is following:

- Capacity of the plant in case of usage natural gas as raw material is **450 ton/day** or app. **165.000 ton per year**;
- Capacity of the plant in case of usage gasoline as raw material is **540 ton/day** or app. **190.000 ton per year**.

Methanol plant has such technology it can use for production of methanol either natural gas or naphtha or any kind of ratio between both raw materials.

## The consumption of raw materials and energy to produce 450 tone's of methanol per day

### Raw material:

- Natural gas: 990 Sm<sup>3</sup>
- Eliminox: 0,018 kg/t
- Liquid nitrogen: 6.000 l/m
- Mobil oil: 100 l/m
- Alkali: 0,16 kh/t

### Energy media:

- Cooling water: 53 m<sup>3</sup>/t
- Demi water: 1,06 m<sup>3</sup>/t
- Instrumental air: 12 Nm<sup>3</sup>/t
- Electrical energy: 52 kWh/t



## Technological procedure:

*First process*, so called “**Unit 100**” is built up of receiving and cleaning of raw material, which during this process is being heated to fixed temperature and in fixed ratio mixed with water steam. This mixture is being guided to reformer where at app.

In the *second process*, so called “**Unit 200**” synthesis gas with turbo compressor is compressed and is being guided to synthesis reactor. Synthesis reactor is a specific device of this process which is made in a shape of tube reactor, where methanol synthesis is made on copper catalyst. Methanol synthesis is an isothermal process with strong exothermal reaction, where reaction is being monitored by cooling and supplying with water. This raw methanol includes beside methanol also side products as water, ethanol etc.

In *third, final process*, so called “**Unit 300**”, distillation of methanol is being made. Depending on demanded of purity of methanol this process is being made in two or three distillation columns. We are using four columns where three columns are used for distillation of methanol on fourth column is used re-distillation of waste water and totally deprivation of addition of alcohol in it.

Final commercial product – methanol achieves quality according to IMPA international standard.



### The Location of the Methanol plant:

Methanol plant is part of the Nafta – Petrochem, which is located inside of the industrial complex NAFTA Lendava. Within this industrial complex are located all the units necessary for undisturbed operation of Methanol plant. They all meet required environmental objectives and standards of safe operation. Nearby the Methanol plant is a very **good road and railway infrastructure**. The plant is literally located along the **highway**, within three hours you reach the city of Ljubljana, Zagreb, Vienna or Budapest.

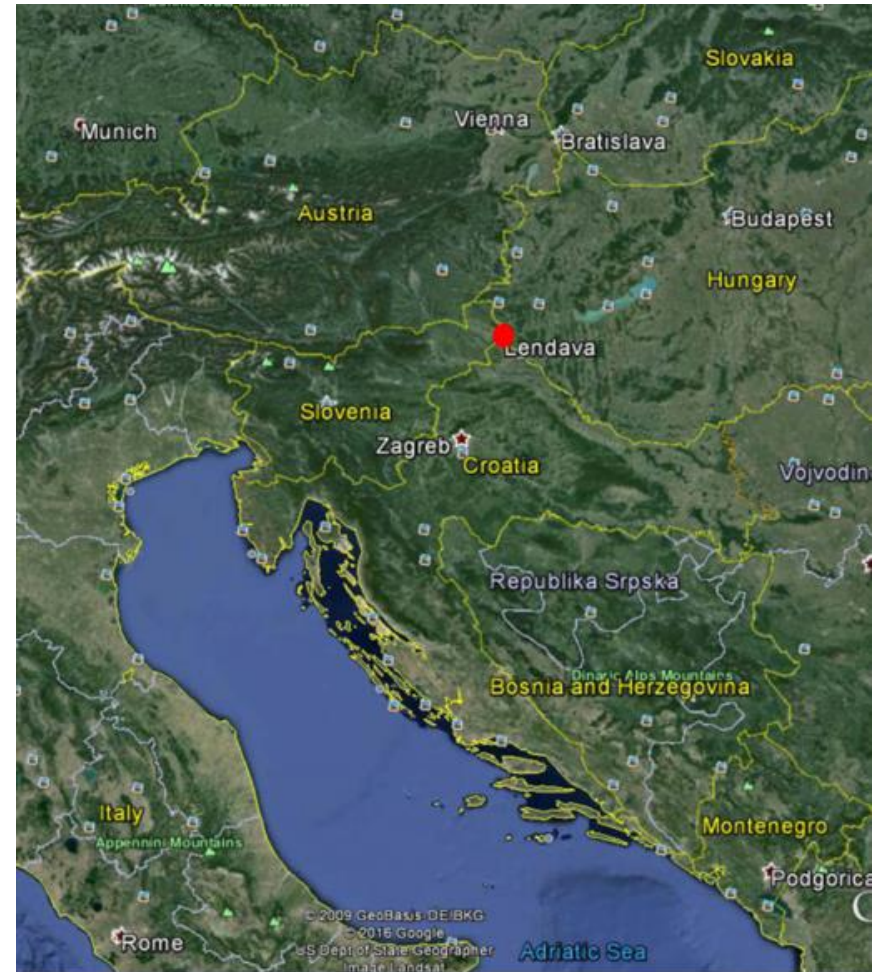
### Additional information:

#### Viewing:

Viewing is possible at any time. Please schedule your visit at:  
[weikslar@netbid.com](mailto:weikslar@netbid.com)

#### Dokumentation and permissions:

All the necessary documentation and permissions are available. By agreement and signed by the NDA, the documentation will be available for review.





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