

Dobrodošli!



This project is co-funded by
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Güssing: A Self Sufficient Town in Austria

DI(FH) DI Christian Doczekal



- ◆ History of Güssing
- ◆ Plants in Güssing
- ◆ Recommendations

Location of Güssing (Austria)



Honour for the innovative Güssing

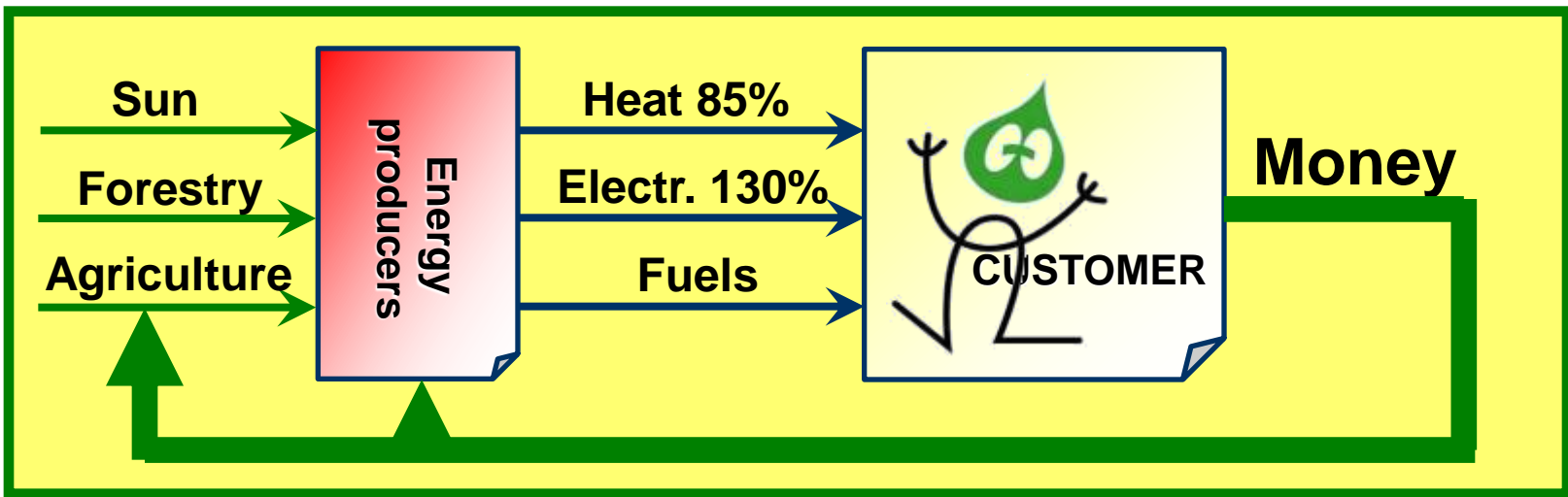
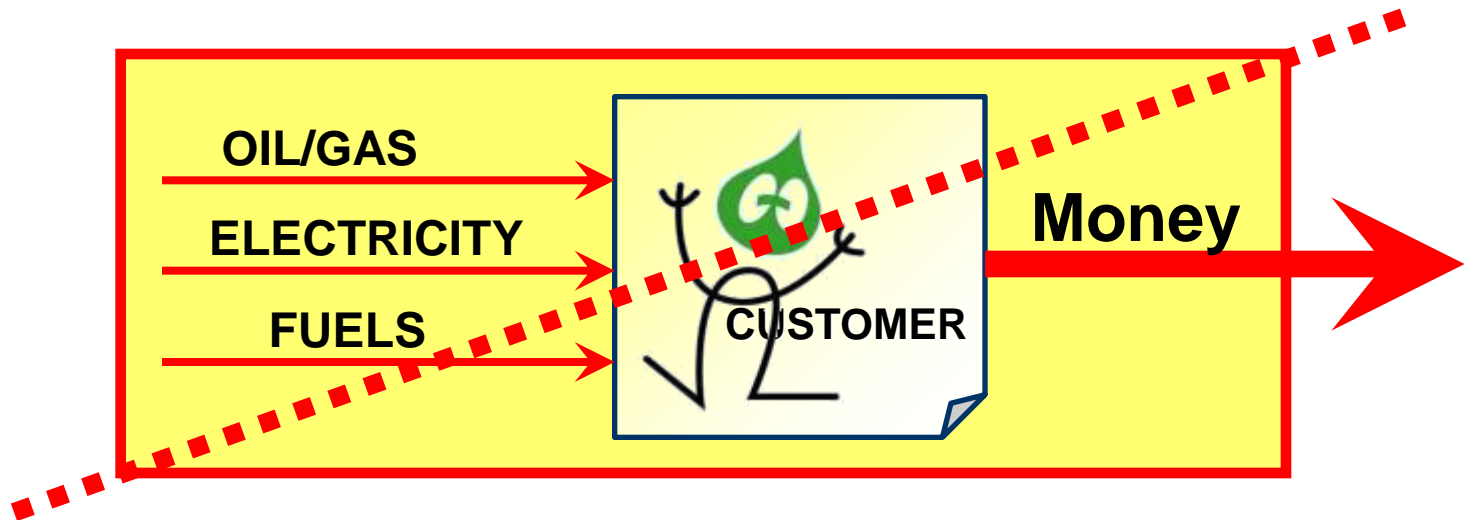


Arnold Schwarzenegger speaks at the Vienna Energy Forum 2011:

„Today, I’d like all of us to commit to do what Güssing did.”

- **50 years alongside the iron curtain to Hungary**
- **no industry**
- **high rate of unemployment**
- **70% commuters**
- **high rate of migration**
- **small structured agriculture**
- **bad traffic infrastructure**





The model of Güssing is the strategy of the **local energy production** with the existing renewable resources of a region.

What to use!?



Sun



Wood



Agriculture



Heat



Electricity



Synthetic
Natural Gas



Synthetic
Fuels

- ◆ 2002 – Austria's Environment Award
- ◆ 2004 – Austrian AND European Solar Award
- ◆ 2004 – Most innovative town of Austria
- ◆ 2005 – Austrian Energy Globe Award
- ◆ 2005 – Global 100 Eco Tech Award (Japan)
- ◆ 2008 – Austrian Award for climate protection
- ◆ 2009 - Watt d'Or (Schweiz)
- ◆ 2009 – Schwaighofer Prize (Methanisation)



- ◆ More than 50 new companies
- ◆ More than 1.100 new jobs
- ◆ Total wood consumption 44.000 tons a year

- ◆ History of Güssing
- ◆ **Plants in Güssing**
- ◆ Recommendations

First biomass district heating plant, 1996



wood floor company

saw dust transport





biomass steam turbine plant – heat and electricity



elec. generator

steam turbine





gras, corn,...



biogas plant for pasta production – heat and el. out of chicken dung

CO₂ neutral produced



Using heat for drying the pasta



smaller biomass heating plants for suburban towns



wood chips



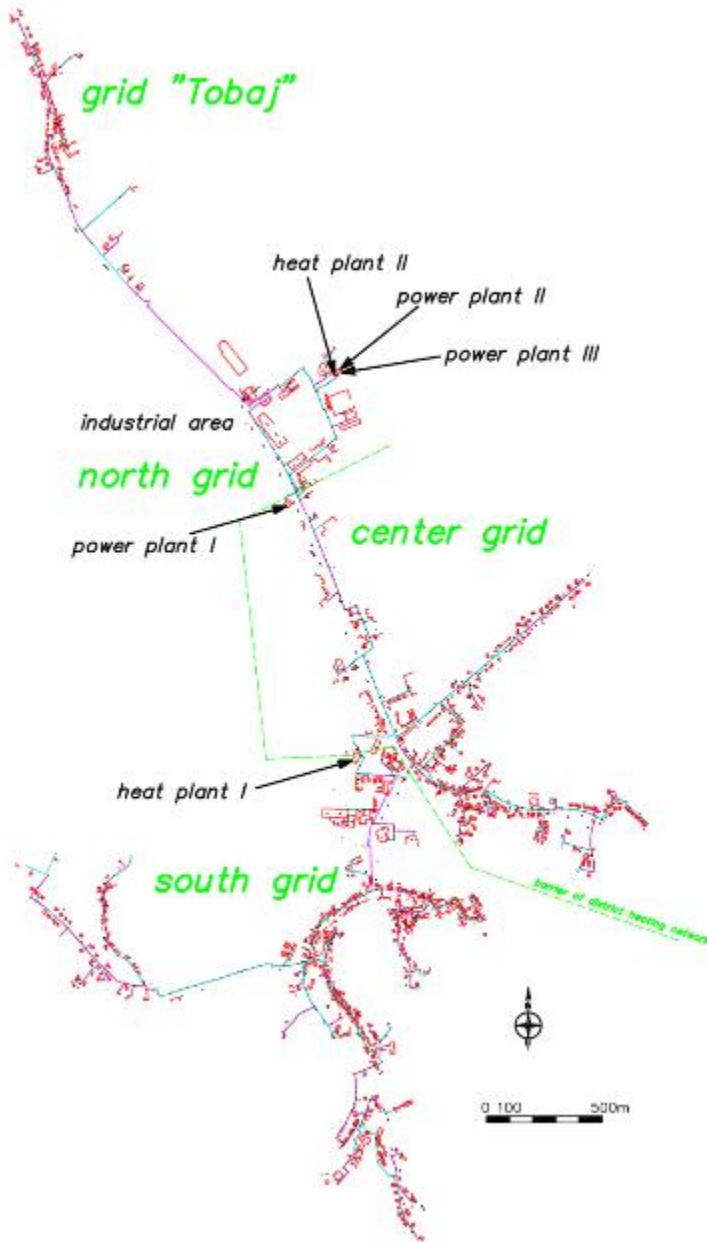
using short rotation crops – e.g. Poplar



~2 years



District heating grid Güssing



Length: 36 km

Temperature level: 120°C / 70°C

Base load: 3 MW

Peak power: 26 MW

3 CHP plants

2 DH plants

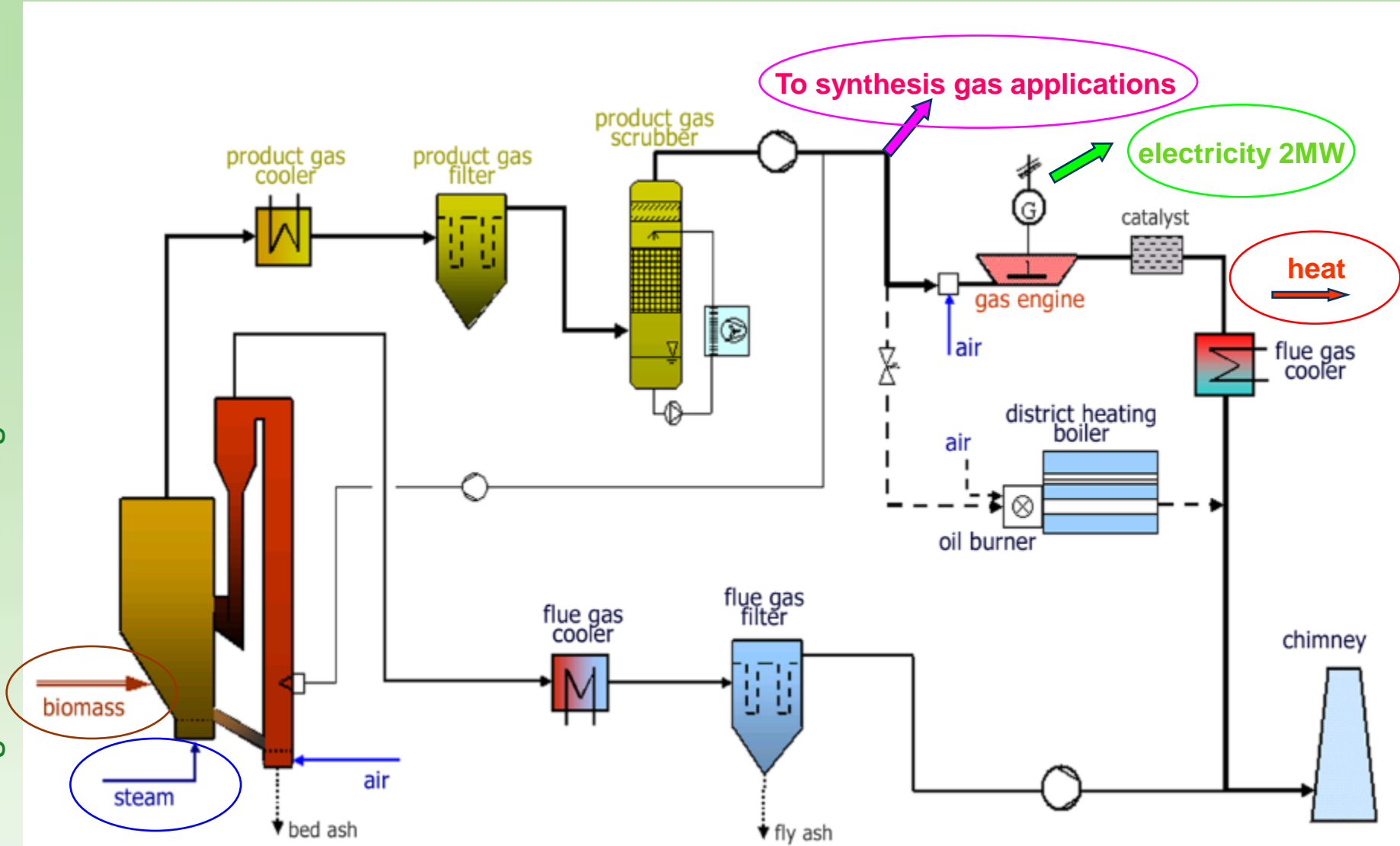
1 SNG plant

600 private consumers

Operating all year (365 days/a)

All public buildings and industry are connected to the DH grid.

Gasification plant Güssing



CoolHeating: Technical Training

Methanisation plant for SNG





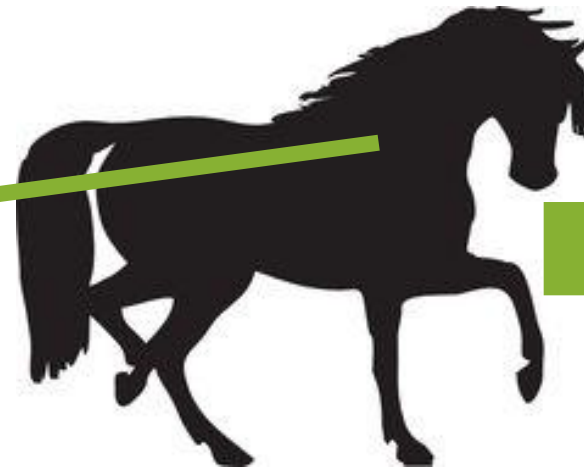


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How to?

- ◆ Create **synergies** between industry, heat consumers, politicians
- ◆ Welcome to **visit Güssing** to see the possibilities
- ◆ Be a **dray-horse** for DH in your town!

District Heating
in your town



future

Advantages:

- ◆ Use **local biomass**!
- ◆ Keep the **money** in your region!
- ◆ Chance for **agro economy**!
- ◆ Offer **cheap and secure** green heat and electricity in your town!
- ◆ Create **new jobs**!

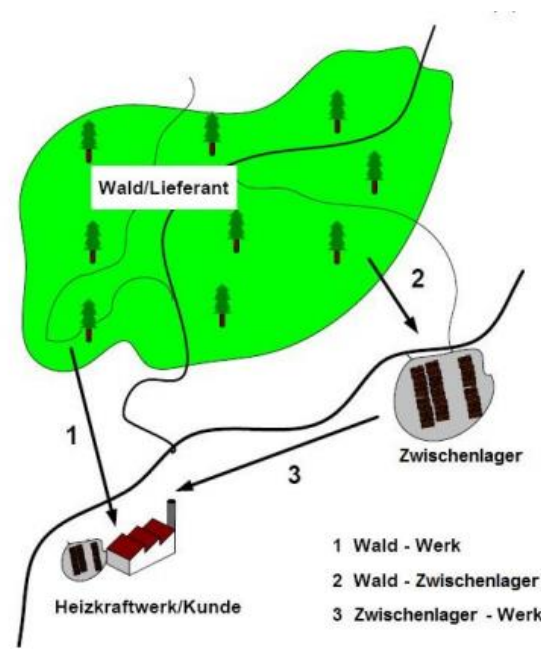


Use wood from private forest owners

Local wood storage – concept:

<http://www.pemures.com/cms/images/downloads/Energieholzbereitstellung-Konzept-SI.pdf>

http://www.pemures.com/cms/images/downloads/Energieholzbereitstellung_Konzept.pdf



Biomass and renewables are a strategic target in future development of your economy!





Your town should do what Güssing did!

Hvala lepa!

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