



# BiG>East Biogas Study Tour – Austria

from 20/04/2009 to 22/04/2009

#### **WELCOME**







# BiG>East Promoting Biogas in Eastern Europe

**Program: Intelligent Energy for Europe** 

Contract No.: EIE/07/214

**Project Duration: 1 September 2007 to 28 February 2010** 

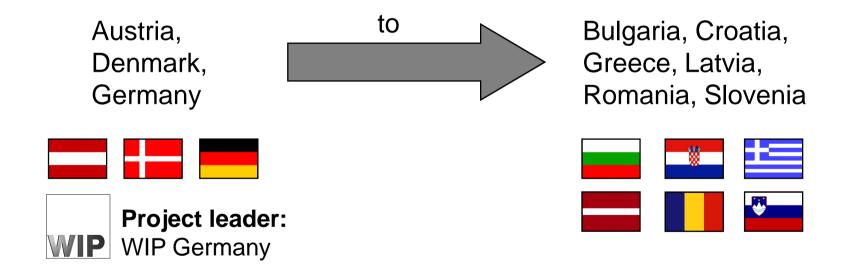
Intelligent Energy DEurope





#### **BiG>East concept**

Knowledge and experience transfer from countries with developed biogas production and utilisation to those countries which biogas market is still emerging.



More information: http://www.big-east.eu

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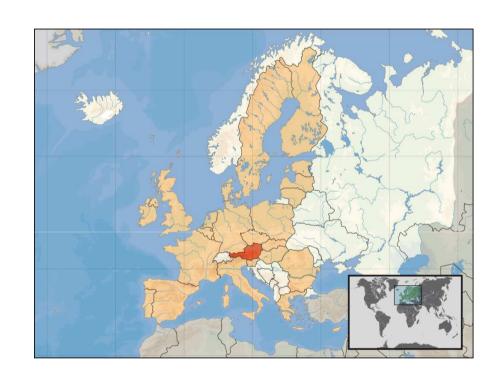
# **Engineering & Consulting**





#### **Austria**

- EU-Member (since 1995)
- Size: 83.871 km², population: 8,34 Mio.
- Long experience in environmental sector
- Leading position in environmental politics and technology
- International established environmental technology
- Renewable Energy (water, wind, sun, biomass)
- Water treatment and water supply
- Waste disposal and waste water disposal







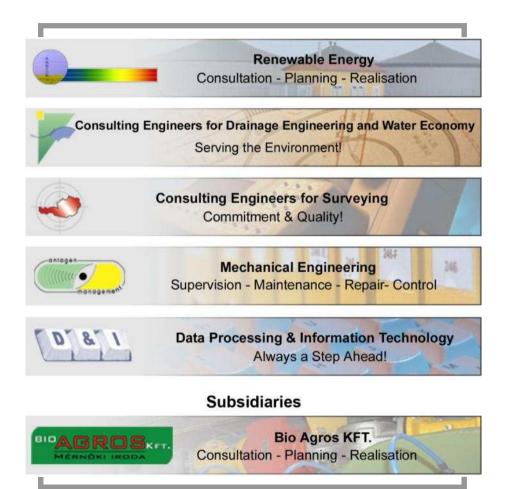
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#### The Company

- Private engineering and consulting company
- Leading in the Austrian environmental, energy and infrastructure sector
- Independent of industry and trade
- Integrated in national and international networks
- Independent advice in all areas of business activities
- From project development to financing, planning and construction supervision up to commissioning
- Quality assurance







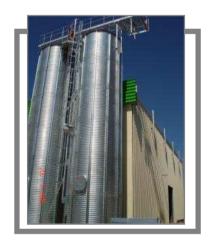
# Project management within the autonomous business segments

- Environmental engineering and water management
- Waste water management and water supply facilities
- Surveying
- IT Services
- Facility management
- Consulting
- Renewable Energy

# RENEWABLE ENERGY Use of biomass

- Biogas
- Bioethanol
- Biodiesel
- Wood pellets



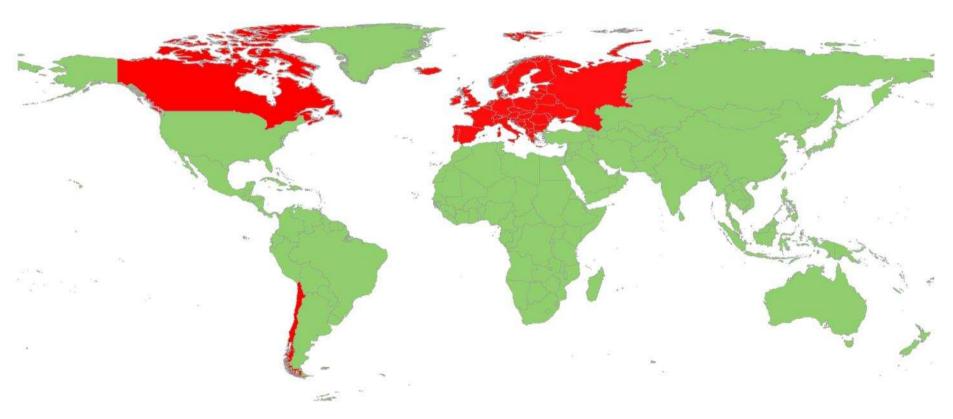




- Combination of different technologies
- Other sources of renewable energy



#### **REFERENCES**

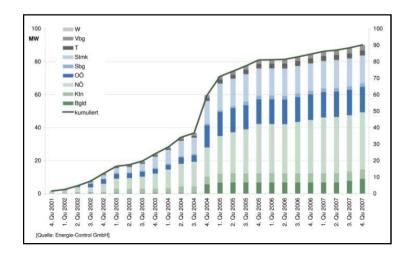


- 35 planned plants in Austria
- 65 planned plants worldwide
- Projects in Austria, Hungary, Slovenia, Germany, Croatia, Serbia, Bosnia-Herzegovina, Russia, Canada and Chile



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# Biogas plants in Austria







#### **Biogas Plants in Austria**

Biogas						
	Contractual relationship with OeMAG per 31.12.2007			Approved biogas plants per 31.03.2007		
Federal state (short name)	Number	Maximum capacity MW	Power input 2007 GWh	Number	Maximum capacity MW	
Burgenland (Bgld)	10	4,25	17,95	19	8,93	
Carinthia (Ktn)	33	5,52	30,17	34	5,65	
Lower Austria (NÖ)	88	29,85	169,87	100	34,73	
Upper Austria (OÖ)	63	12,88	83,25	78	15,34	
Salzburg (Sbg)	11	1,73	10,29	11	2,19	
Styria (Stmk)	41	15,78	105,18	45	16,89	
Tyrol (T)	16	1,95	8,82	19	3,02	
Vorarlberg (Vbg)	32	2,99	14,04	34	3,35	
Vienna (W)	-	-	-			
Total	294	74,95	439,57	340	90,10	

in Austria **340 biogas plants**with a total
electrical output
of **90 MW** have
been approved.

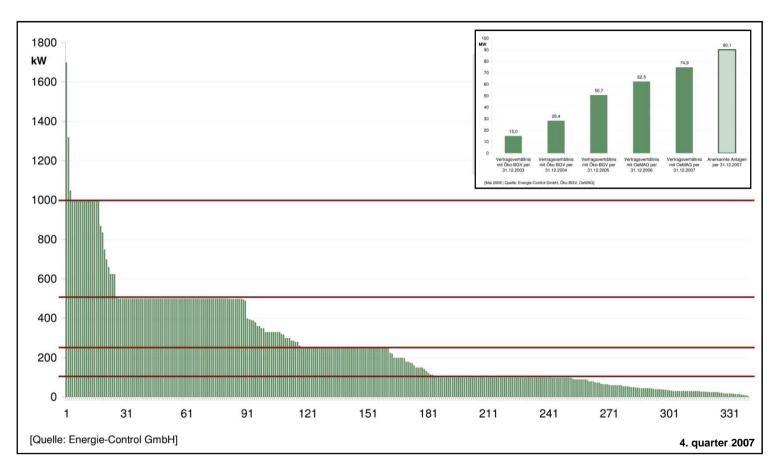
As at 31.12.2007

Thereof 294
biogas plants
with a total
electrical output
of 75 MW are
already working.

[October 2008 | Source: Energie-Control GmbH, Öko-BGV]



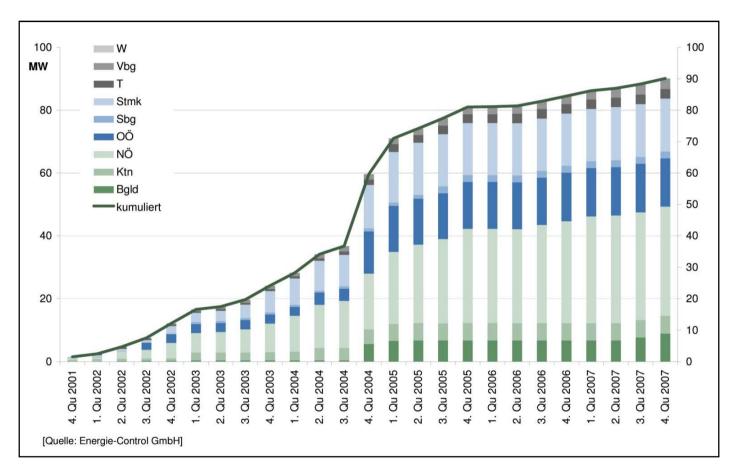
#### Size of biogas plants in Austria



In the year 2007 the average allowance for electricity from biogas plants was 13,82 Cent/kWh.

The average size of a biogas plant was 267 kW in the year 2007. The big majority (93 %) of the biogas plants is smaller than 500 kW and only 3 biogas plants are bigger than 1 MW. The biogas plants smaller than 500 kW produce 73 % of the power (66,4 MW).

#### **Green Electricity Act**



The Green
Electricity Act
regulates the
support of the
expansion of
renewable
energies in
Austria.

The stimulation of expansion is effected via supports of the green energy by feed-in tariffs.

Since the amendment of the Green Electricity Act 2006 the feed-in tariffs have been reregulated annually.



#### **Feed-in Tariffs 2008**

Feed-in Tariffs 2008	electrical Output	Tariffs € Cent/kWh	
Biogas plants using	up to 100 kW	16,93	
agricultural input material (using manure, corn silage,	101 to 250 kW	15,13	
grass,)	251 to 500 kW	13,98	
	501 to 1000 kW	12,38	
	Above 1001 kW	11,28	
Biogas plants using waste products as co-fermentation	Tariffs according to electrical output minus 30 %		

This tariffs are guaranteed for a time of 10 years. In the 11th year a 25 % reduced tariff is paid. In the 12th year a 50 % reduced tariff and at least the price on free market is paid.

Depending on the used technology it is also possible to gather additional subsidies for the construction of the biogas plant.

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### Thank you for your attention !!

#### **Consulting & Information**

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