The contribution of bioenergy to energy security in Austria

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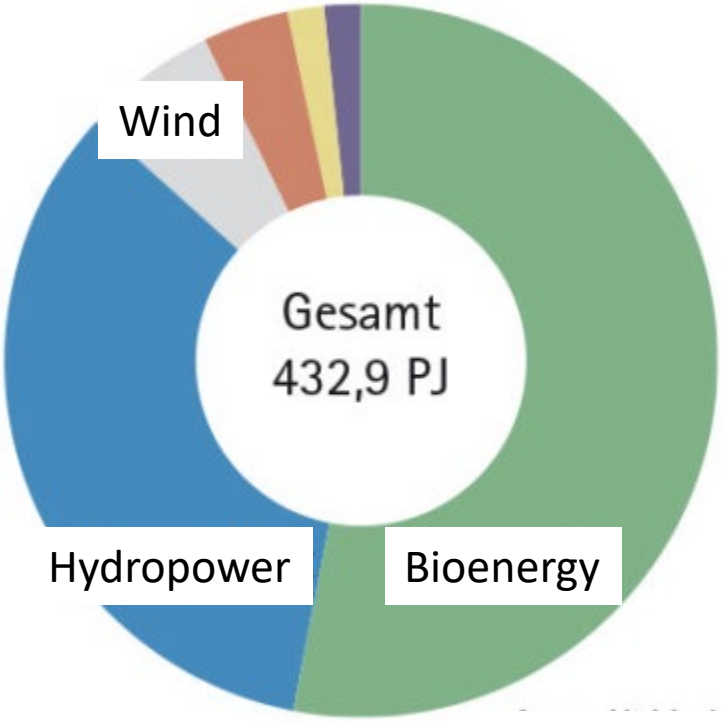
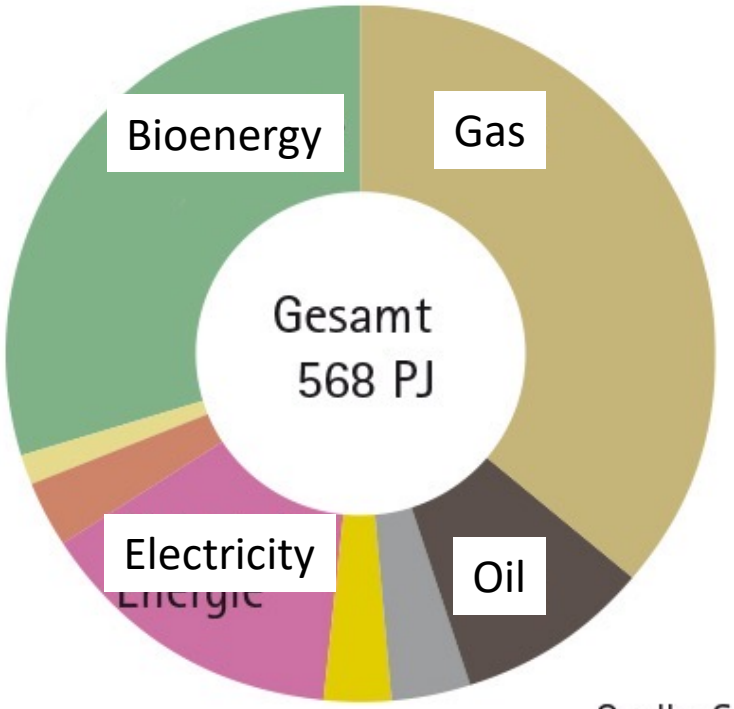
Bioenergy plays a dominant role in renewable energy use in Austria



53,1 %	Bioenergy
33,6 %	Hydropower
6,2 %	Wind
3,9 %	Geothermal & Heat pumps
1,7 %	Solarthermal
1,4 %	PV

Quelle: Statistik Austria, Energiebilanz 2019

Heat supply in Austria

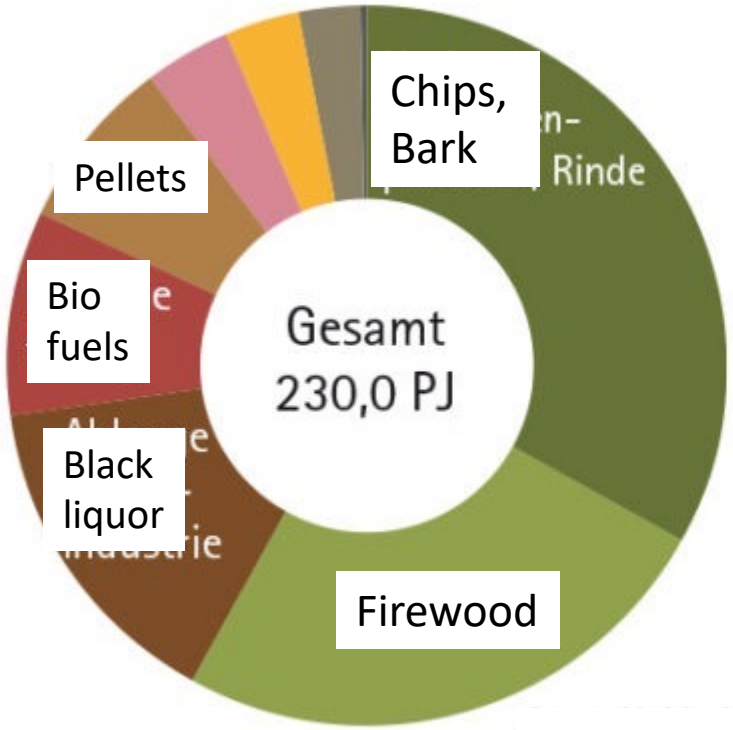


36,2 %	Gas
9,0 %	Oil
3,6 %	Coal
2,9 %	Waste
14,4 %	Electricity
2,9 %	Geothermal & heat pumps
1,3 %	Solar Thermal
29,7 %	Bioenergy

Werte für Prozesswärme, Raumklima und Warmwasser

Quelle: Statistik Austria, Energiebilanz 2019 und Nutzenergieanalyse für Österreich 2019

Sources of bioenergy



33,3 %	Residues of forestry and sawmills.
25,1 %	Firewood
14,6 %	Black liquor (Paper Industry)
9,2 %	Ethanol, Biodiesel
7,6 %	Pellets
3,9 %	Biogas
3,4 %	Municipal Waste
2,7 %	Other wastes
0,2 %	Charcoal

Share of wood: 80,6%

Natural regeneration: very large number of young trees

A mature forest after 100 years

Few large stems!

3 thinning operations are realized during this period to reduce the number of stems**.**
This is necessary to secure forest health and stability.
The resulting wood can only be used for energy

Quality wood and residues

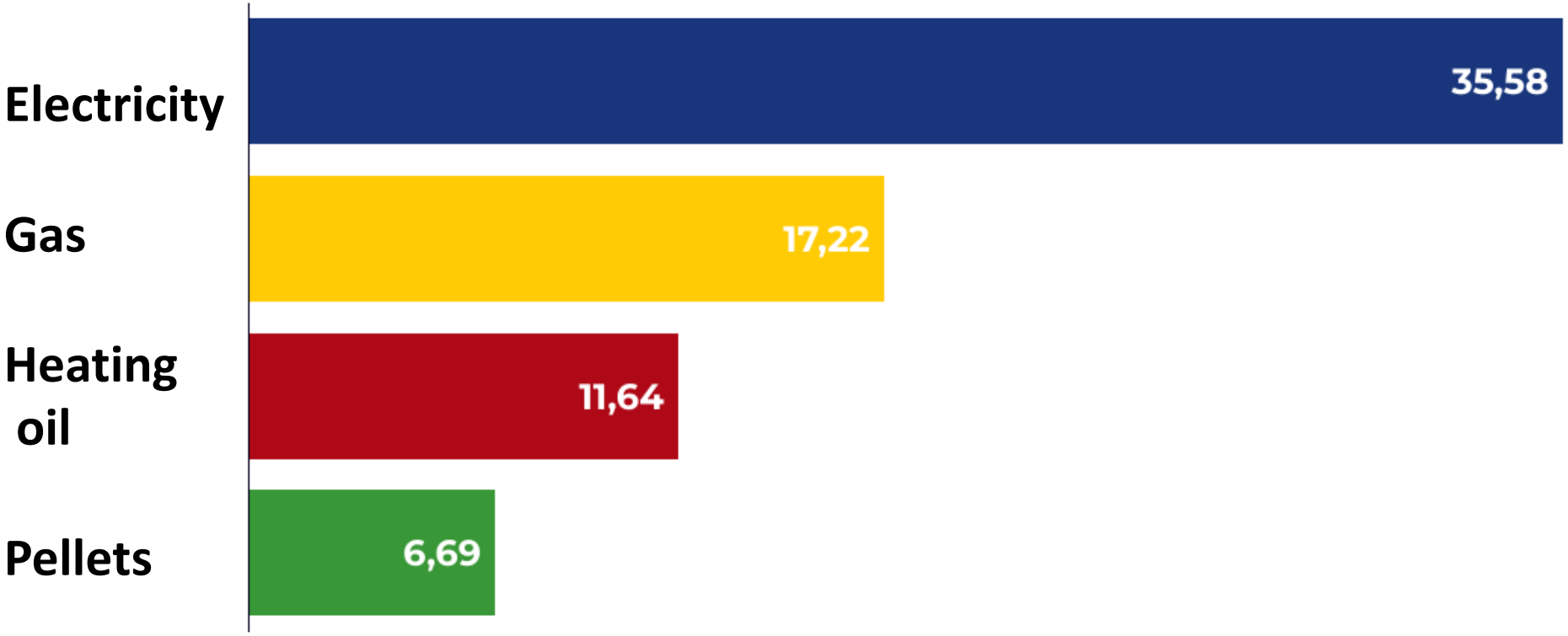
Firewood

Production of chips

District heat using wood chips: 2500 villages supplied!

Pellet stove and pellet boiler

Comparison of costs (April 2023)



Conclusions

- The contribution of bioenergy to energy security is significant, especially for heat supply
- The crisis of gas supply has led to a boom of heating with wood fuels
- The boom has created problems of sharply rising prices and supply problems
- Currently insecurity is dominant among consumers – sharp decline of investment