

# **Energy Supply and its Impact on Regional Level:** International Trends, National and Regional Opportunities

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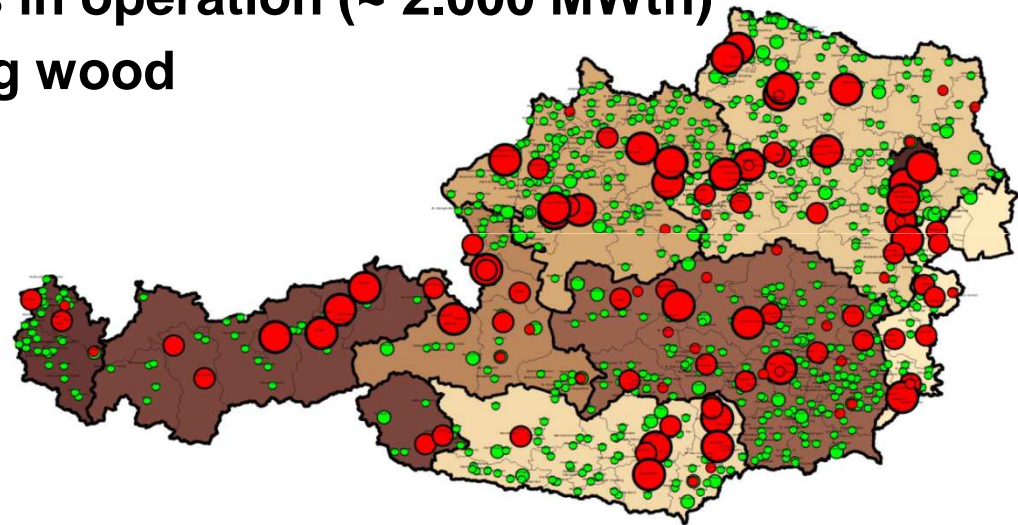
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- **National Success – Regional Bioheat Supply in Austria**
- **International Finance Transactions for Energy versus Added Value in the Region**
- **Sustainability of Wood Production versus Exploitation of Oil Reserves**
- **Compendium**



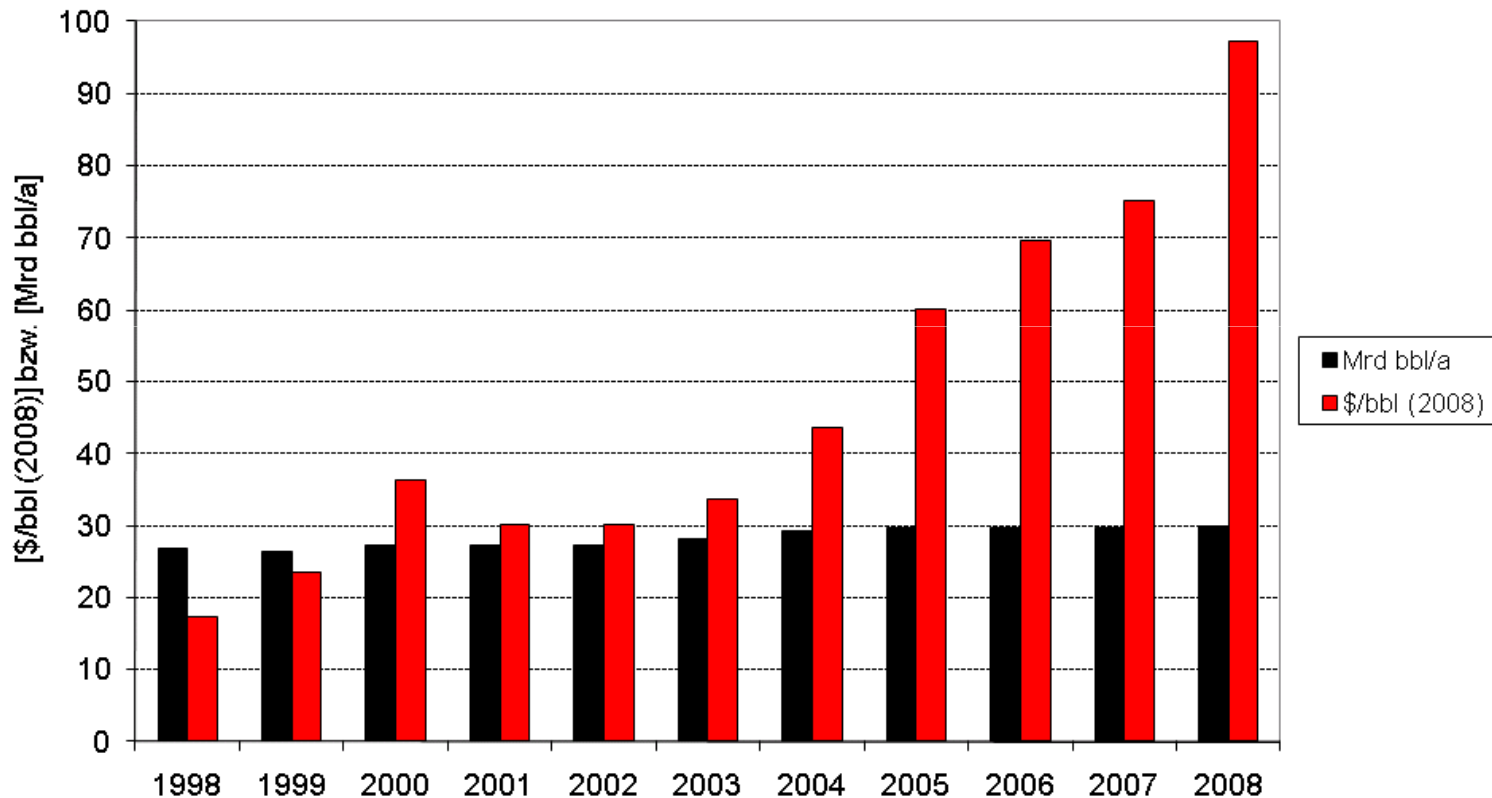
# Austrian Success Story: Supply with Bioheat on Regional Level

- > 1.000 biomass district heating plants in operation (~ 1.100 MWth)
- > 100.000 full automatic biomass boilers in operation (~ 6.000 MWth)
- > 450.000 heat storing stoves in operation (~ 2.000 MWth)
- 700.000 households are using wood as main source for heating
- 400 MWel biomass CHP plants (~ 2.000 MWth)
- Regional bioheat as essential backup load in Gas-crisis 2009
  - Biomass substitutes 3,5 billion m<sup>3</sup>/a of natural gas
  - In wintertime substitution of > 1 million m<sup>3</sup>/h natural gas



# Global Development of Crude Oil Production and Oil Prices

Globale Entwicklung der Ölproduktion und des Ölpreises (brent)



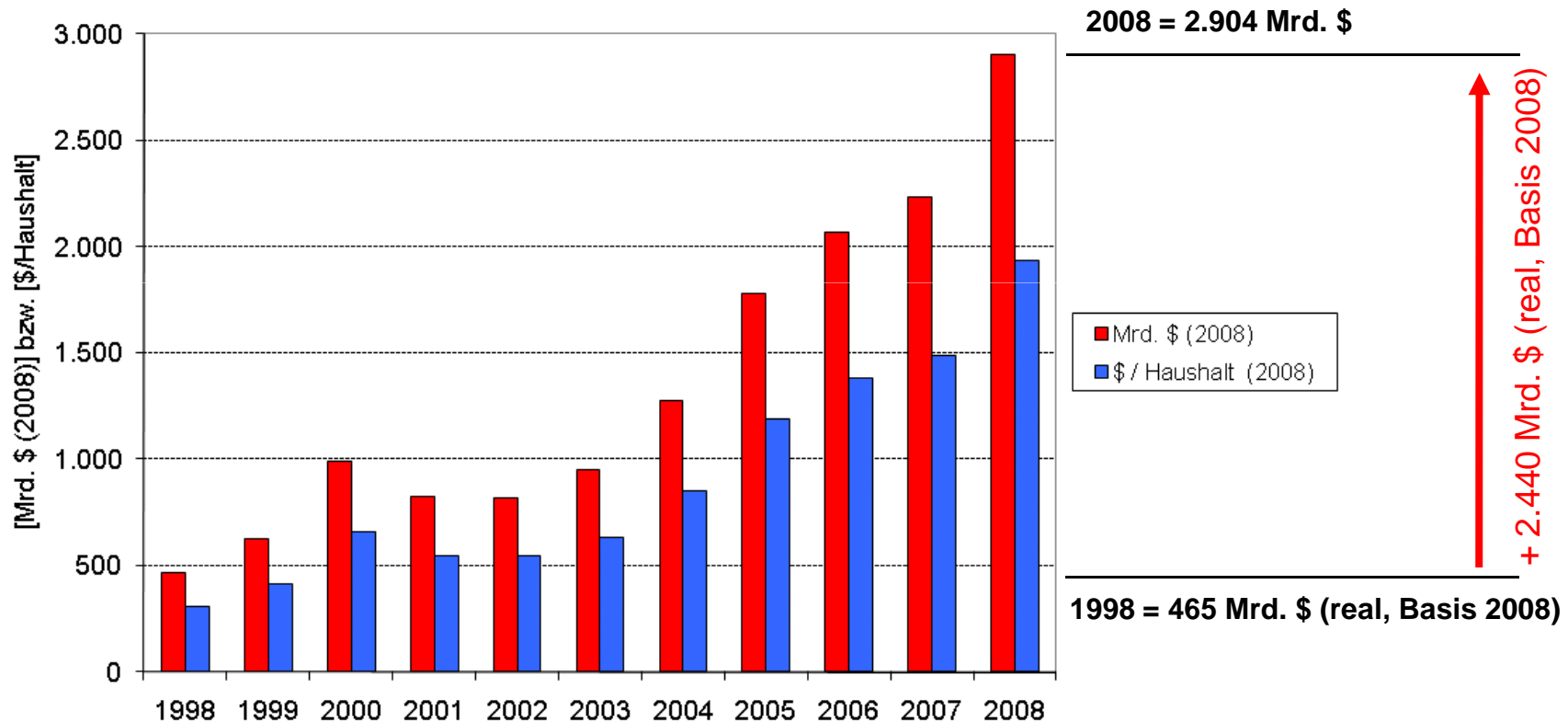
Quelle: BP Statistical Review of World Energy (2009)



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# Evaluation of Global Oil Production

## Bewertung der globalen Ölproduktion

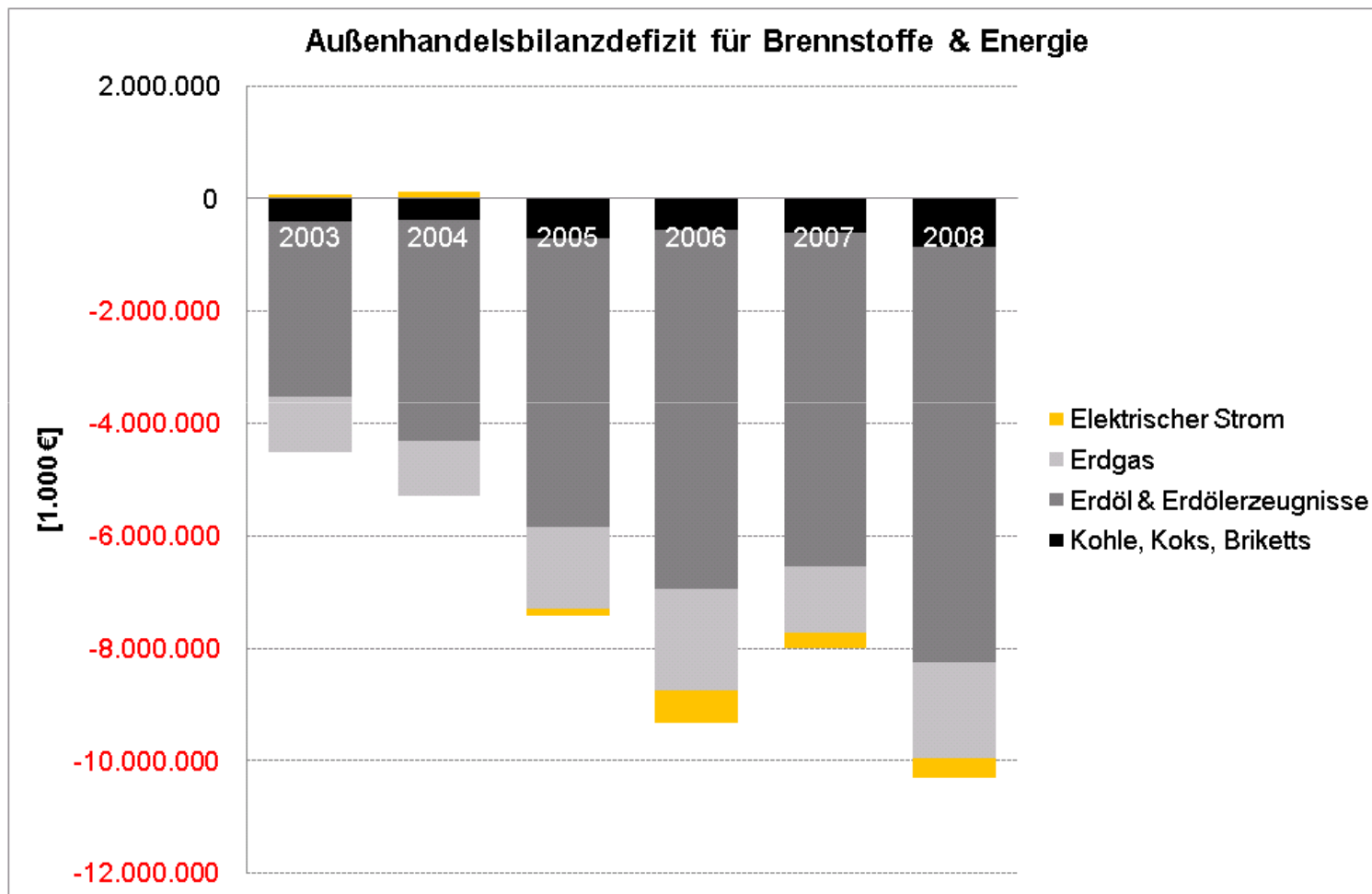


Quelle: BP Statistical Review of World Energy (2009), eigene Berechnungen



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# Negative Tradebalance for Energyimports in Austria



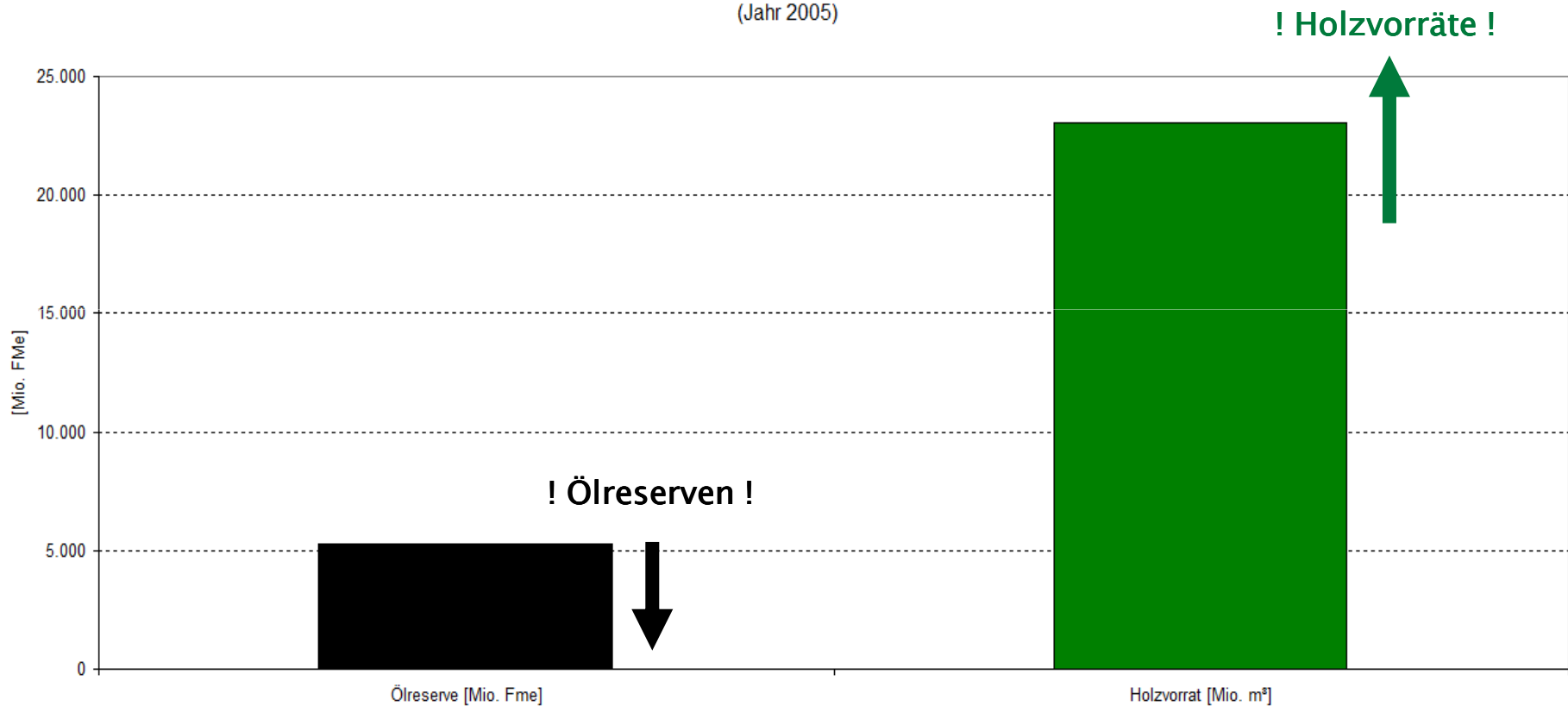
Quelle: Statistik Austria (2009)



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# Sustainability of Wood Production versus Ruinous Exploitation of Oil Reserves in EU

Ölreserven und Holzvorräte in der EU27  
(Jahr 2005)



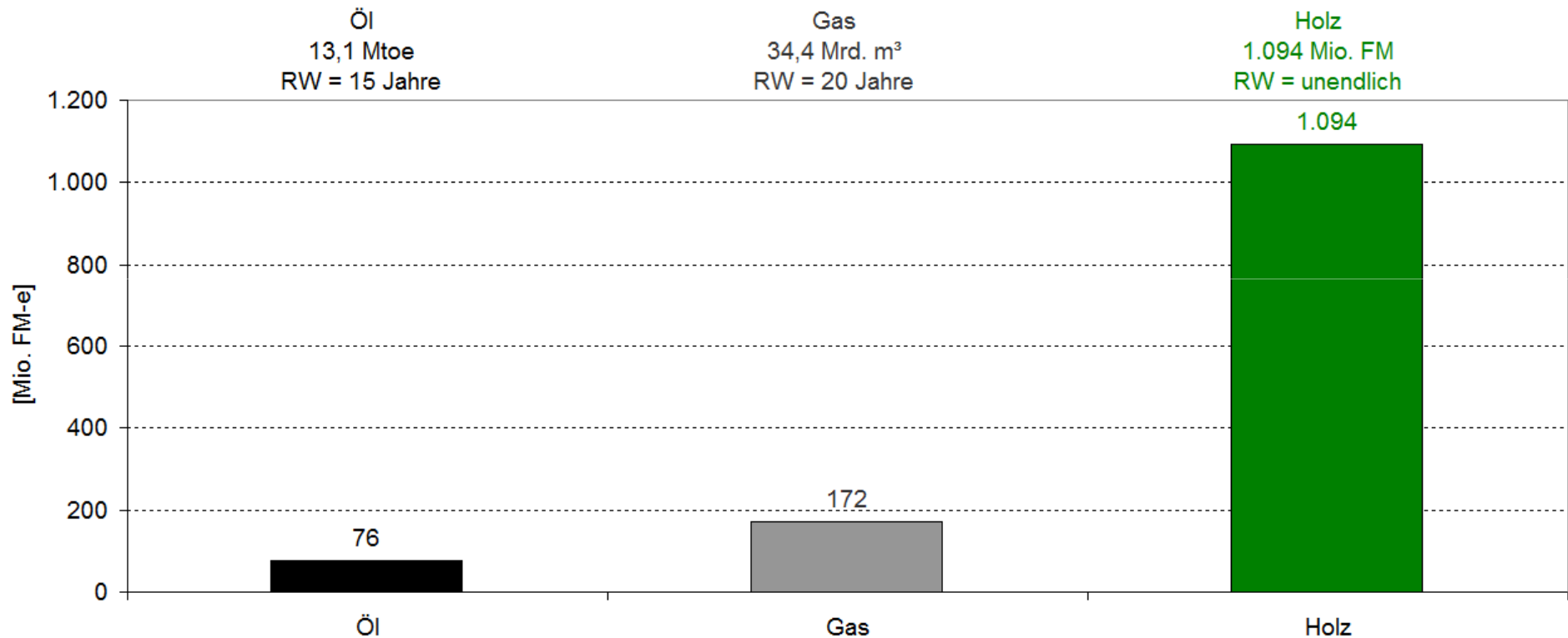
Datenquelle: FV der Mineralölindustrie



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# Sustainability of Wood Production versus Ruinous Exploitation of Oil Reserves in Austria

## Vorräte und Reichweiten (RW) in Österreich

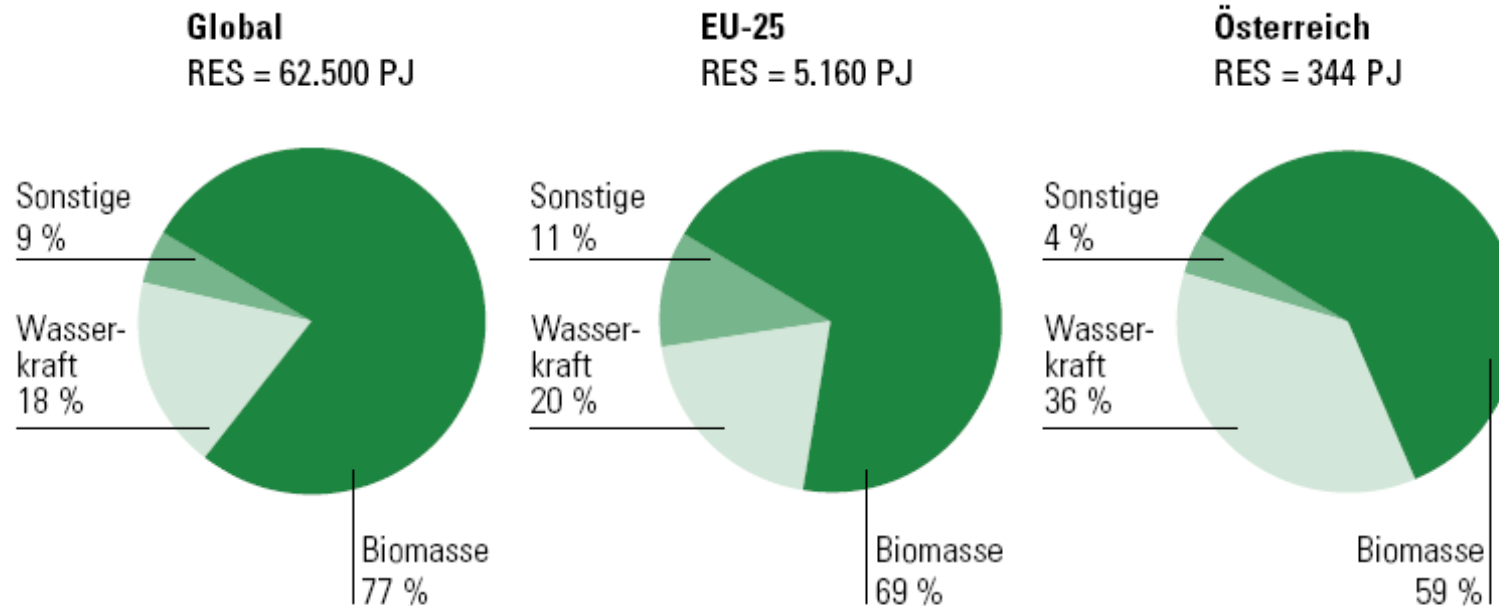


Quelle: Fachverband der Mineralölindustrie Österreichs 2008, BFW – ÖWI 00/02



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# Biomass Dominates the Portfolio of Renewable Energies



**Innerhalb des Portfolios der erneuerbaren Energien dominiert Biomasse auf globaler (ca. 77%), europäischer (ca. 69%) und nationaler Ebene (ca. 60%).**

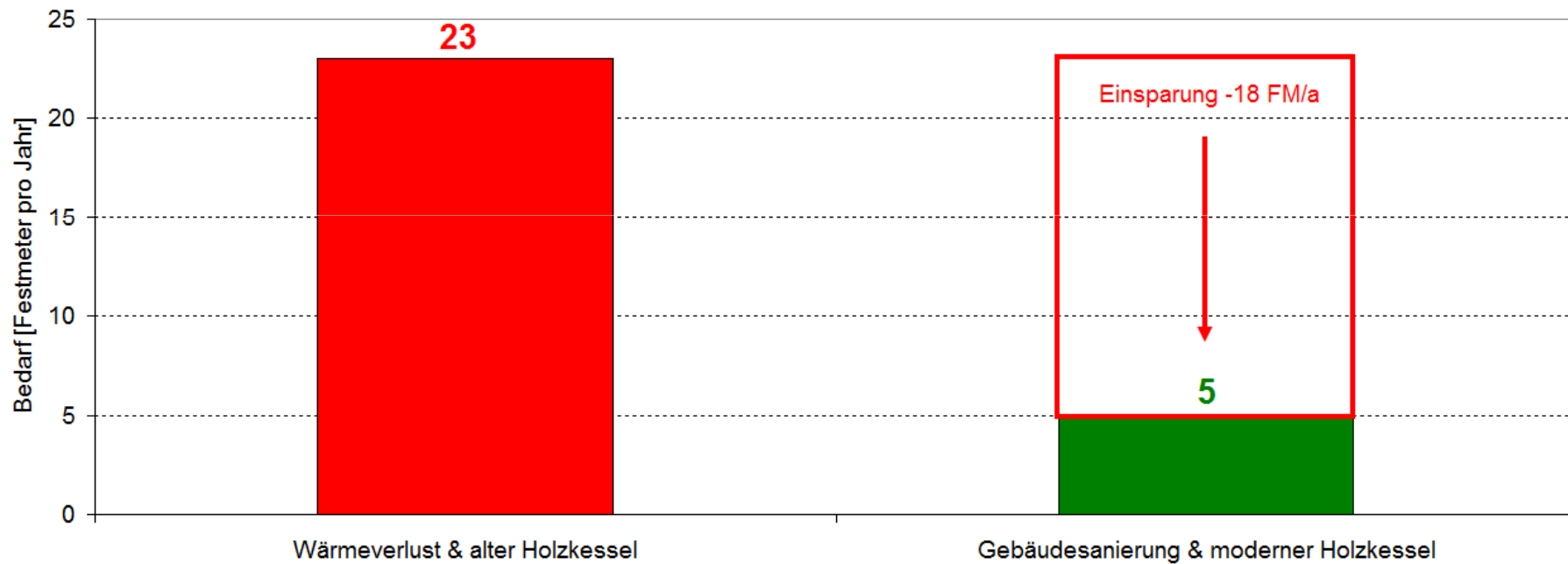
Datenquelle: IEA, Eurostat, Statistik Austria, Zahlen 2006, Renewable energy sources



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# Positive Example: More Efficiency through Modern Boilers and Modernising Isolation of Buildings

Effizienzbeispiel: Sanierung eines Einfamilienhauses  
Brennholzeinsparung 4,6 : 1



Quelle: LKO – eigene Berechnungen



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**Oil Price 1998 - 2008 -> where are 2.500 Mrd. \$ ?  
-> Intelligent Sponsorship with Money from Austria!**



# Thank you for your attention!

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