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**BUILDING PARTNERSHIPS FOR
ENERGY SECURITY**

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INOGATE Study Tour/Workshop

Energy Efficiency & Renewable Energy



The Experience in Europe and Austria in Sustainable Energy Banking; Support Facilities Available - Part 2

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Content of the presentation



- Company introduction denkstatt GmbH
- Presentation part 1: EE/RES Financing, Terms and Technologies, European Experience, Success Stories
- **Presentation part 2: Austria: Financial Support Facilities / Projects Available for EE/RES**



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Austria: Financial Support Facilities and Projects Available for EE/RES



Overview of content

- European framework
- The Austrian energy strategy
- EU Energy Efficiency requirements
- Overview on Financial Support Facilities in Austria
- Best practise examples in Austria

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European conditions



- **20% renewable energy in the year of 2020**
 - 2010: with about 12,4% above goal (goal 2011:10,7%)
 - Network expansion for EE-requirement too slow
 - Open goal for 2030
 - Long-term harmonization of conveying systems necessary

- **20% CO2-reduction until 2020**
 - 2010: with -15,3% vs. 1990 on the way to reach the goal
 - CO2-price in EU-ETS now at about 3 € - for some too low
 - Global climate agreement is out of sight - at Kyoto II (2013 to 2020) EU is extensive alone
 - Open goal for 2030, for 2050 – 80% (!)

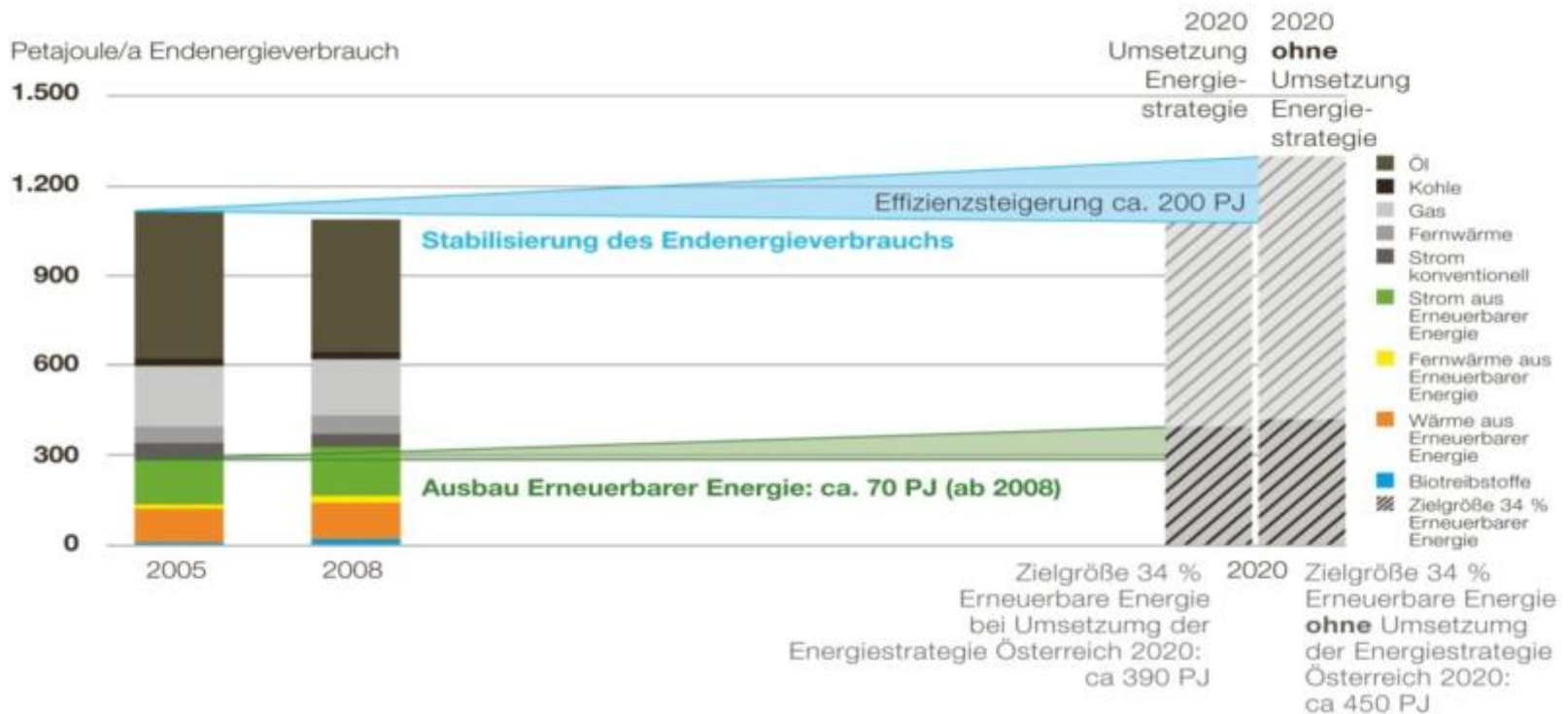
- **20 % energy efficiency until 2020**
 - Prediction for 2020 are at 10 % target achievement
 - (with implementation of the energy efficiency-RL at about 17-18 %)
 - Open goal for 2030



The way and conditions to the goal: The Austrian energy strategy

- 34% renewable part
- 20% increase of the energy efficiency
- CO₂-reduction: 16% in non-ETS area & 21% in ETS area

Ziel: Endenergieverbrauch auf dem Niveau von 2005 stabilisieren



The EU-energy efficiency guidance

- **Commitment on an energy efficiency goal for 2020**
 - Until 2020 in comparison to the predictions, EU-wide 20%
- **Engagement system of energy efficiency**
 - Annually 1,5% goal for saving final energy
- **3% restoration rate annually**
 - Renovation of buildings owned and used by the central government
- **Energy audits/Energy management systems**
 - Obligatory implementation for all big companies every 4 years
- **Requirement to determine usage and information for deduction**
 - individual counter, consumer-friendly information for deduction and cost estimate
 - access to consumption data
- **Sanction**
 - “effective, adequate and daunting” sanctions by default - to be fixed by MS
- **Potential-analysis for KWK**
- **Availability to systems regarding accrediting and certification**
- **Improvement of information and training**



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Austria: Financial Support Facilities and Projects Available for EE/RES



Kommunalkredit (KPC)

- KPC manages the environmental support schemes on behalf of the Environment Ministry, the Climate & Energy Fund and Klima:aktiv mobil
- Regions, companies and private persons
- Funding for **investment** for EE & RES (plus water, waste etc.)
- Examples for financial support include:
 - Thermal restoration of old buildings and support for high efficient new building (zero emissions)
 - Energy efficiency in companies and authorities
 - Lighting switch
 - Climatisation of building
 - Energy efficiency in transport for companies



Austria: Financial Support Facilities and Projects Available for EE/RES



Austrian Research Promotion Agency FFG

- **New Energies 2020 program supports innovations.** Focus of funding is on energy efficiency, renewable sources of energy, smart energy systems and electromobility.
- **Building of Tomorrow Plus program** on energy-producing buildings and energy efficient housing.
- Transnational energy research projects with International Energy Agency (IEA), EU FP7 projects etc.
- “Smart city” or a “Smart urban region” in Austria. Smart green technologies are being applied to turn cities and urban districts into “zero emission cities” and “sustainable urban regions”.
- **“Electromobility’s Technical Beacons”** on sustainable mobility & energy supply
- **denkstatt project: “Bio refinery”**



FFG



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Austria: Financial Support Facilities and Projects Available for EE/RES



Climate & Energy Fund

- “Hybrid” between Investfunding / technology support
- Aims to support Pilot projects and programs
- Examples for financial support :
 - Research (e.g. denkstatt project “VCM”)
 - E-Mobility, Traffic
 - Renewable Energies and Energy Efficiency
 - Model Regions, Construction and Sanitation



- **Photovoltaic funding program:**
 - 36 Mio. EUR reserved
 - Continuous funding from 12.4.2013 to 30.11.2013



Example 1: Bundesrechenzentrum



Modernisation of lighting control

- **Environmental benefit:** Energy savings of ca. 70 MWh (~ca. 18 tons CO₂)
- **Financial benefit:** Saving of EUR 7,700 per year

Further measure: Freecooling server room, heat pumps



IT für Österreich



Example 2: Bank Austria Technical Center



Free cooling

- Free-Cooling System for room cooling, reduction of energy demand via usage of outdoor air until 15° Celsius
- **Savings:** ca. 12%, or 115,000 Euro/year



Example 3: Employee motivation programs – Energy efficiency



- Up to 20% of the energy costs can be saved through training of consciousness and changing of user patterns
- Best Techniques need to be combined with **intelligent application and improvement of users!**
- Organisational measures and actions to be taken to train employees – with little budget!

