



AUSTRIAN ENERGY AGENCY

Austrian Energy Agency

Austria's energy strategy for the road ahead - it's the demand side, stupid!

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Content

- background
- targets
- process
- results
 - the 15 „energy packages“

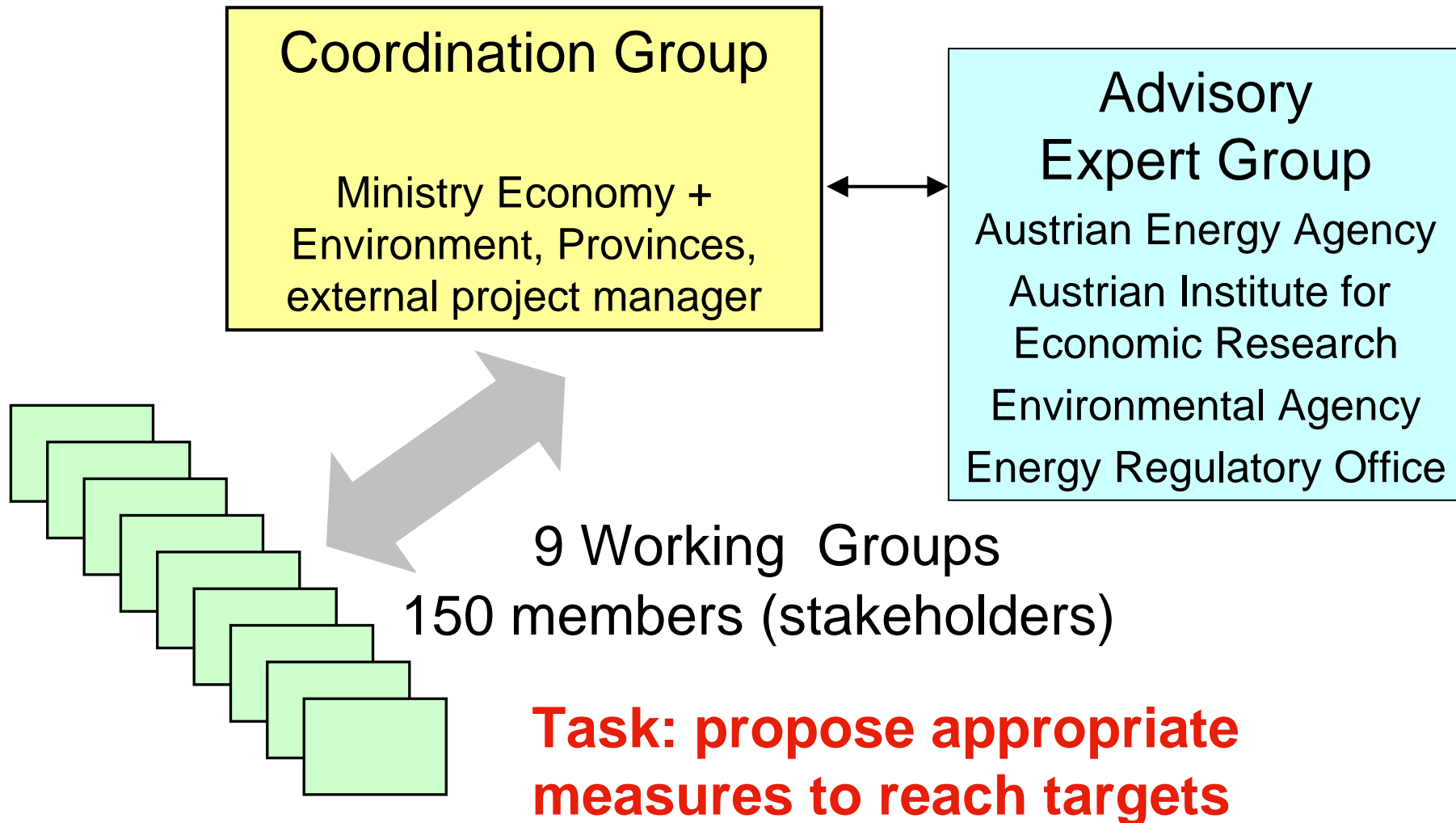
Background

- starting point
 - government programme 2008 – 2013
 - strives for a comprehensive energy and climate policy
 - to balance several targets, especially from EU directives
- April 2009
 - Minister for Economy and Minister for Environment present roadmap (structure, time frame) for formulation

■ energiestrategie Österreich



Structure of the strategic process



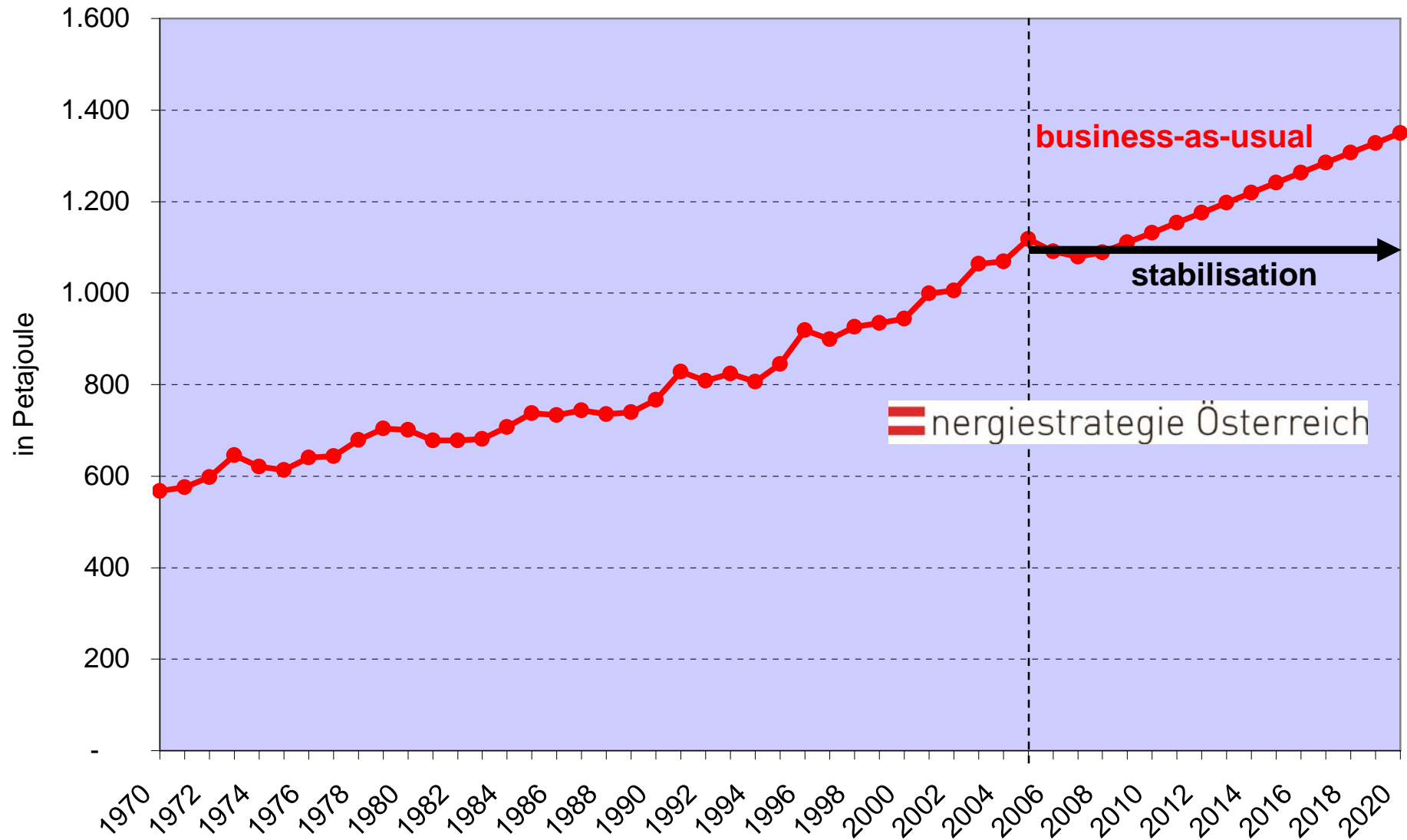
9 working groups

- 4 WGs on demand side
 - buildings (envelope & heating; residential, commercial)
 - small users (other consumption than in buildings)
 - energy intensive consumers (steel, cement, bricks, glass, ...; except heating)
 - transport
- 4 WGs on supply side
 - renewables (except hydro)
 - hydro
 - fossil fuels/conventional generation
 - networks and storage
- 1 WG on financing, R&D
- 370 proposed measures were condensed by the coordination group to 39 „measure clusters“

Main targets

- elaborated from the advisory expert group
 - stabilisation of final energy demand at the level of 2005 until 2020: 1.100 PJ
 - sectoral targets to reach stabilisation (2020/2005)
 - buildings: -10%
 - other consumption of small users: +10%
 - energy intensive consumers: +15%
 - transport: -5%
 - increasing the share of renewables on gross final energy consumption to 34% in 2020 (2005: 24%)
 - reduction of greenhouse gas emissions by 16% until 2020 compared to 2005
- effects of economic crises are not considered

Stabilisation of final energy demand



Evaluation results

- quantitative analyses based on Austrian energy flow model built up by Austrian Energy Agency using TIMES model generator
- final energy consumption of 1.100 PJ in 2020 can be reached using all proposed measures
- all demand sectors except energy intensive consumers achieve their sectoral target
- 34% renewables and minus 16% greenhouse gas emissions in non-ETS can be reached
- rapid and coordinated action between federal and provincial government is necessary
- balance between policy instruments like legal requirements and subsidies is necessary

Key points of the Austrian Energy Strategy

- presented on March 11, 2010
- will be followed by discussion within the federal government and with the provinces
- beginning of a long-term process
- monitoring of implementation
- **Three pillar policy**
 - **energy efficiency**
 - **renewable energies**
 - **energy security**
- no proposal for single tax, but for general ecological tax reform
- 15 „**energy packages**“

The 15 „energy packages“ (1)

■ energy efficiency package

- energy efficiency act
- voluntary agreements or obligation for energy suppliers
- best-practice of public authorities
- energy management, energy concepts of enterprises
- energy advice as requirement for subsidies

■ ecological tax reform

- integrated approach, no proposal for single tax
- funding with revenues from emission certificates (EU emission trading from 2013 on)

■ energy spatial planning

- regional optimised concepts

The 15 „energy packages“ (2)

- **initiative for research, technology and innovation**
 - improvement of the conditions for european and international cooperation
 - energy efficiency in electricity transformation, distribution and usage: motors, smart PV, high efficient ICT, smart grids, smart metering
 - increased usage of renewables
 - CO2-neutral agglomerations
 - from individuell production to seriell manufacturing, „technology lighthouses“
- **awareness, education, human resources**
 - campaigns
 - curriculars, professional and advanced trainings

The 15 „energy packages“ (3)

■ **climate protection act**

- binding definition of responsibilities of ministries and provinces

■ **building package**

- new buildings: standard for „nearly zero energy buildings“
- rehabilitation: from actually 1% to 3% renovation rate in 2020
- introduction of contracting and energy services
- socially balanced improvement of legal conditions
- replacement of heating boilers, switch to renewables and district heating
- quality control for energy passport of buildings

The 15 „energy packages“ (4)

■ **package for the production, services, SMEs**

- optimisation, especially concerning electricity
- energy advice offensive
- financial incentives based on advice and energy management
- tenders of public authorities based on „total costs of ownership“ principle (defined in a standard)
- obligatory energy concepts for companies with high energy demand
- green ICT offensive: certification, IT-energy passport

■ **smart grids and smart metering**

- considered in regulation of electric network operators
- intelligent energy systems, integration of renewables

The 15 „energy packages“ (5)

■ **mobility package**

- re-orientation of transport and spatial planning
- coordinated mobility concepts on the federal, provincial and municipal level
- development of public transport services, especially „first and last mile“: synchronized timetables, ...
- commercial transport: bimodal traffic, feeder lines
- mobility management: solutions for companies and municipalities
- new framework for the stationary traffic
- vehicle-related taxes based on ecological criteria
- 10% renewables in transport fuels
- introduction of e-mobility

The 15 „energy packages“ (6)

■ renewables package

- hydro: until 2015 new plants with 3,5 TWh; 0,7 TWh from improved efficiency and revitalisation
- wind: plus 2,7 TWh until 2020
- photovoltaics: focus integration in buildings (the building as power house)
- priority of biomass use for heating, biomass electricity generation: plus 100 MW electric capacity, preferred with CHP technology
- bio-methane strategy until 2011
- rules to secure pellets supply
- usage of waste heat
- energy spatial planning to support district heating

The 15 „energy packages“ (7)

■ **securing fossil fuel supply**

- diversification of import routes (nabucco, south-stream)
- domestic oil, gas production, storage, LNG, flow reversal

■ **securing energy supply with powerful transport and distribution networks**

- coping with decentral and fluctuating production
- integration into the European market
- expansion and modernisation of networks
- expansion of district heating and cooling systems
- uprating of energy storage

Conclusions

- buildings and transport are the key areas for action
- energy efficiency is crucial to achieve Austria`s targets and helps
 - to raise the share of renewables
 - to reduce CO2-emissions
 - and to increase security of supply
- integration of “soft measures” covering awareness, information, advice, training, etc. is necessary

Thank you for your attention!

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