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WORKING FOR YOU – WHEREVER YOU NEED ENERGY.



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Renewable Energy and Energy Efficiency in Austria

9th Energy Charta Task Force Meeting
Regional Energy Cooperation in Central and South Asia
Astana, Kazakhstan
7 October 2013

The Austrian Energy Regulatory Authority E-Control

Significance of Renewables and Energy Efficiency in Europe

Austrian Energy Strategy

Conclusions



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The Austrian Energy Regulatory Authority E-Control

E-Control Austria Overview



- E-Control is the regulator for the electricity and natural gas markets in Austria
- The regulator has the job of strengthening competition in a liberalized energy market and to act in the best interest of the consumer
- The regulator is politically and financially independent from any other public or private entity; decisions have to be taken in a neutral and transparent way
- Regulatory Authorities were established in all EU Member States as a result of energy market liberalization
- E-Control exists since 2001

E-Control's Duties



Setting the framework:

- establishing market rules for competition
- regulating network tariffs

Exercising market oversight:

- identifying and remedying competition violations
- tracking and analyzing market development

Acting in a consumer oriented way:

- contributing to effective consumer protection
- ensuring that customers benefit from efficient market functioning

E-Control International



E-Control is an active member of

GOAL

facilitating the creation of a single, competitive, efficient and sustainable internal market for gas and electricity in Europe

CEER

- Council of European Energy Regulators
- Voluntary, not-for-profit association of regulators

ACER

- Agency for the Cooperation of Energy Regulators
- ACER is operational in Slovenia since March 2011

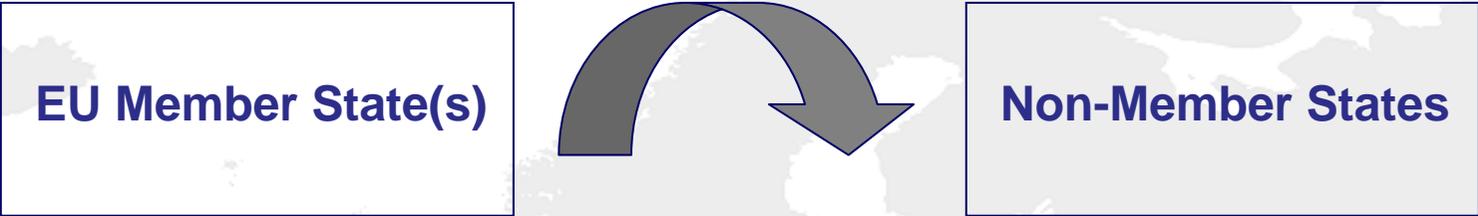
Energy Community

- Contract between EU and south eastern European states to extend EU energy acquis to south eastern Europe
- E-Control has participant status

ICER

- International Confederation of Energy Regulators
- Voluntary framework for cooperation between energy regulators from around the globe

E-Control and EU Twinning Projects



EU Member State(s)

Non-Member States

- Projects between EU MS and non-MS
- Aimed at institution building and knowledge transfer
- E-Control carried out Twinning projects with regulatory authorities/ counterparts in Ukraine, Macedonia and Croatia and is currently active in Georgia

In addition:

- Small scale assistance project with regulator in Uganda funded by the Austrian Development Bank (currently ongoing)

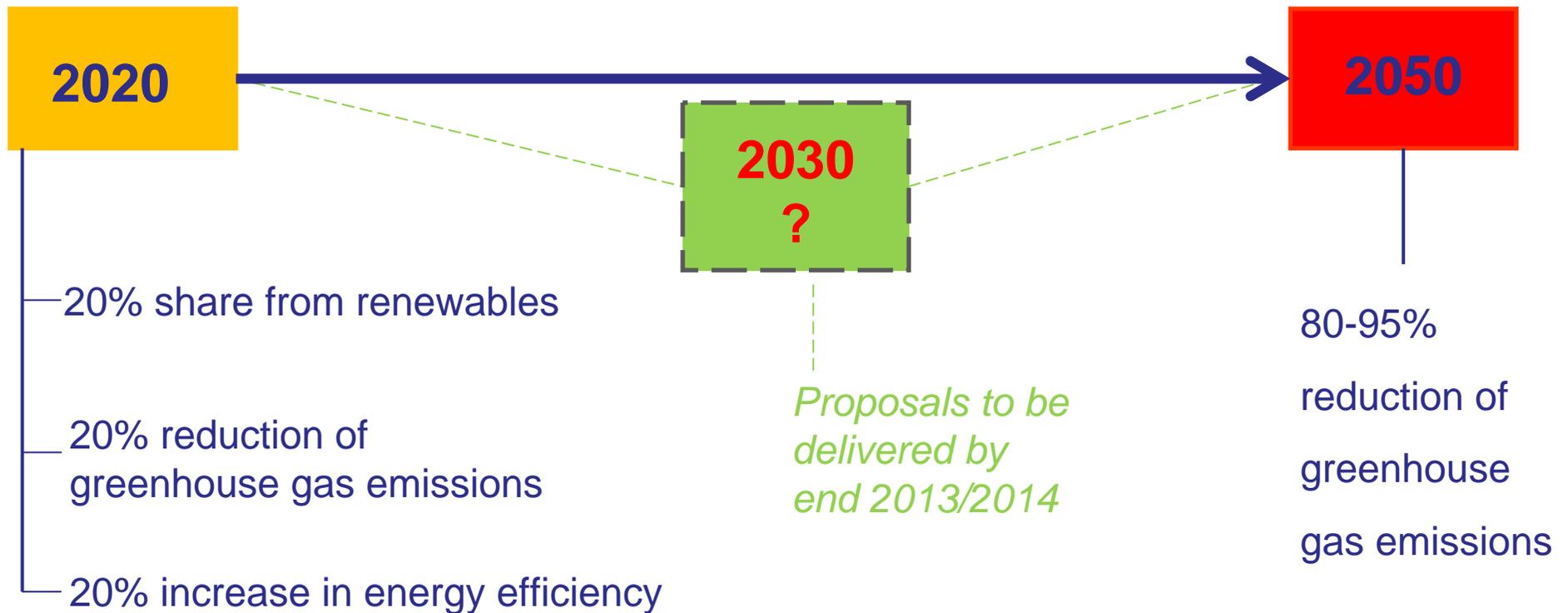


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Significance of Renewables and Energy Efficiency in Europe

Energy and Climate Policy of Europe

What the EU wants to achieve:



What does EU Policy mean for individual Member States

- The EU Climate and Energy Goals are set to be achieved on a Union level
- Each Member State has to contribute an individual share to these goals
- For example Austria needs to achieve the following until 2020:
 - 34% increase of renewables
 - 16% reduction of greenhouse gas emissions
 - 20% increase of energy efficiency

EU Legal Basis



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Other forthcoming EU initiatives

- (Non-binding) Guidance from the European Commission to Member States on:
 - Best practices in RES support schemes
 - Use of RES cooperation mechanisms
 - Capacity mechanisms
- Revision of (binding) State Aid Guidelines on Environmental and Energy Aid 2014-2020
- Both initiatives will be published later this October



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Austrian Energy Strategy



Austria

The Austrian Energy Strategy is based on 3 pillars:

Renewable Energy

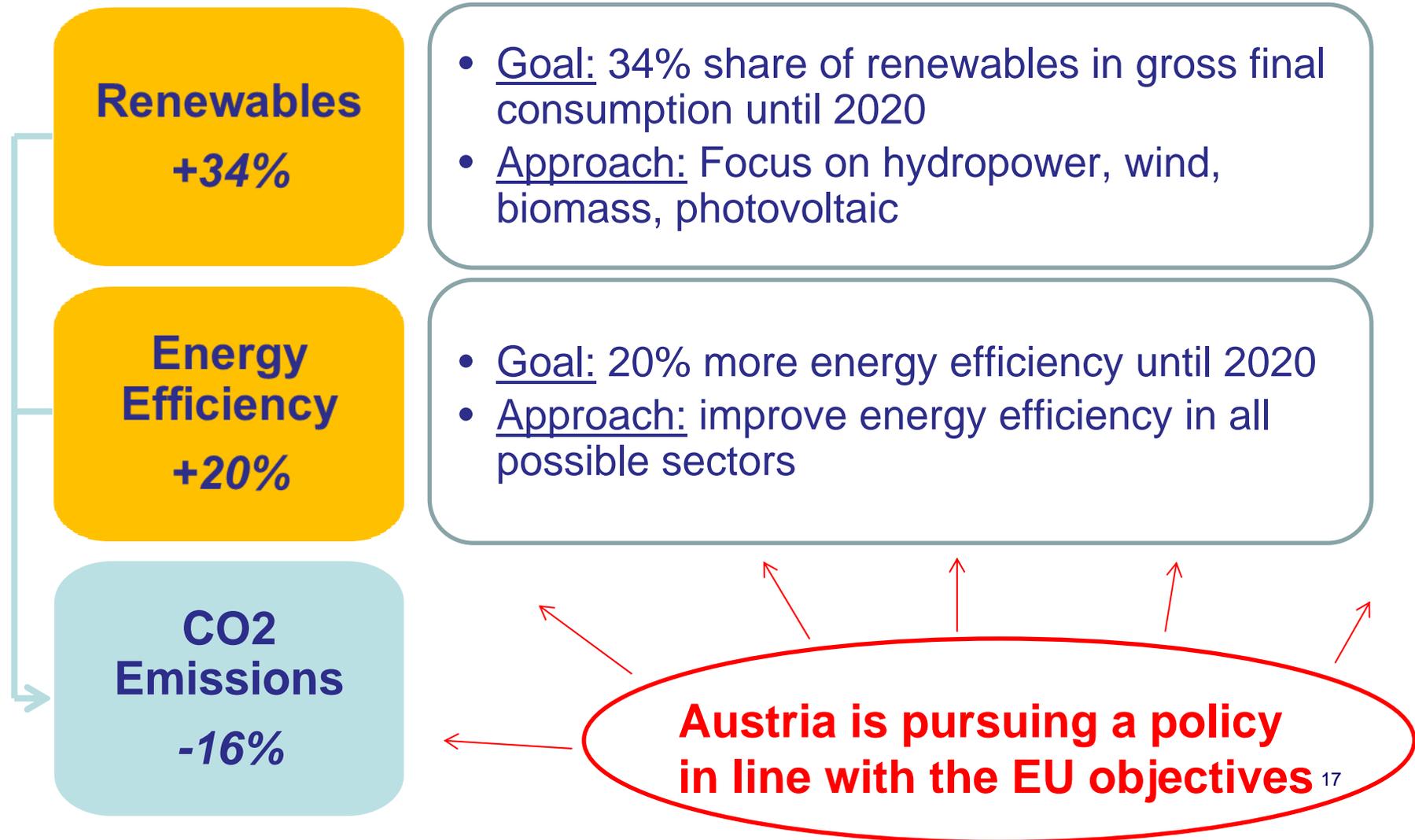
Energy Efficiency

Security of Supply

Description of Pillars



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Renewable Energy, Energy Efficiency and Electricity Disclosure: Role of E-Control

Renewable Energy



- Green Electricity Act: evaluation of green electricity developments (volumes, subsidy budget, cost efficiency, balancing energy)
- Annual official report on development of supported RES-E
- Expert opinions as basis for feed-in tariffs and financing structure

Energy Efficiency



- Elaboration of proposals for the reduction of electricity demand
- Tariff structure should reflect efficiency targets (but consider grid costs and their origins as well)

Electricity Disclosure



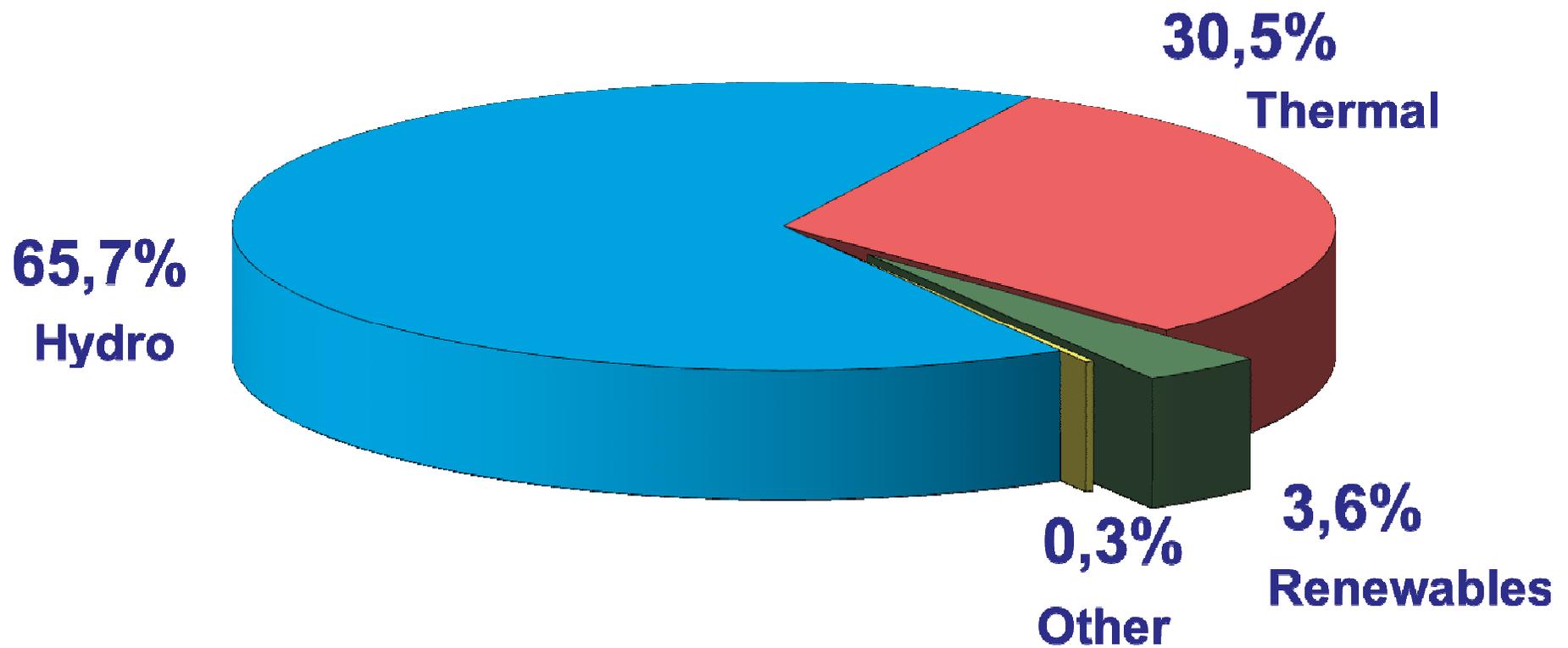
- E-Control is the monitoring authority for disclosure in Austria
- E-Control is the administrating institution of the database for guarantees of origin (GOs) for electricity produced from renewable energy sources



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Renewable Energy in Austria

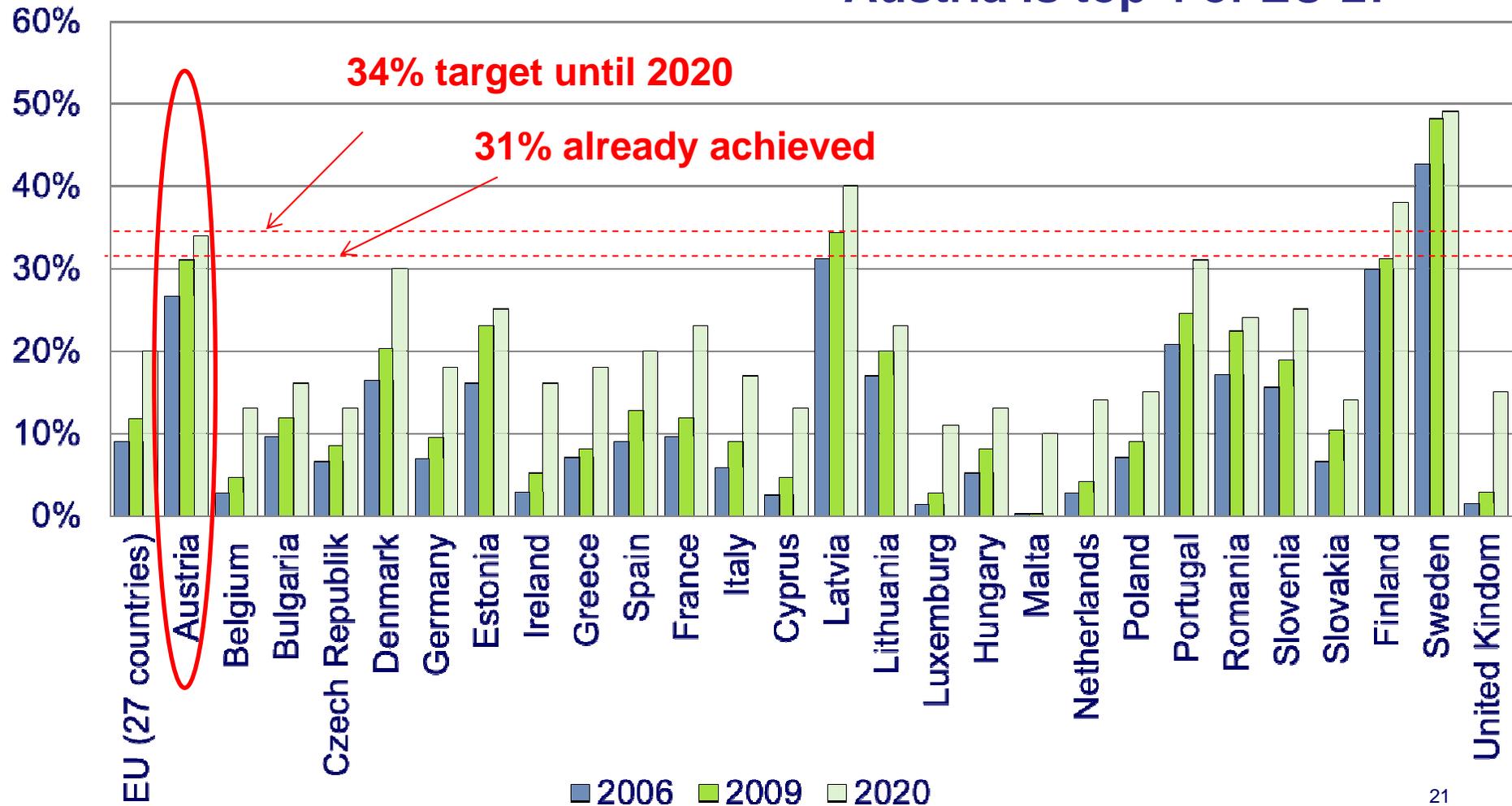
Total Energy Supply 2012



Source: Energie-Control Austria (August 2013)

Share of Renewable Energy in Gross Final Energy Consumption

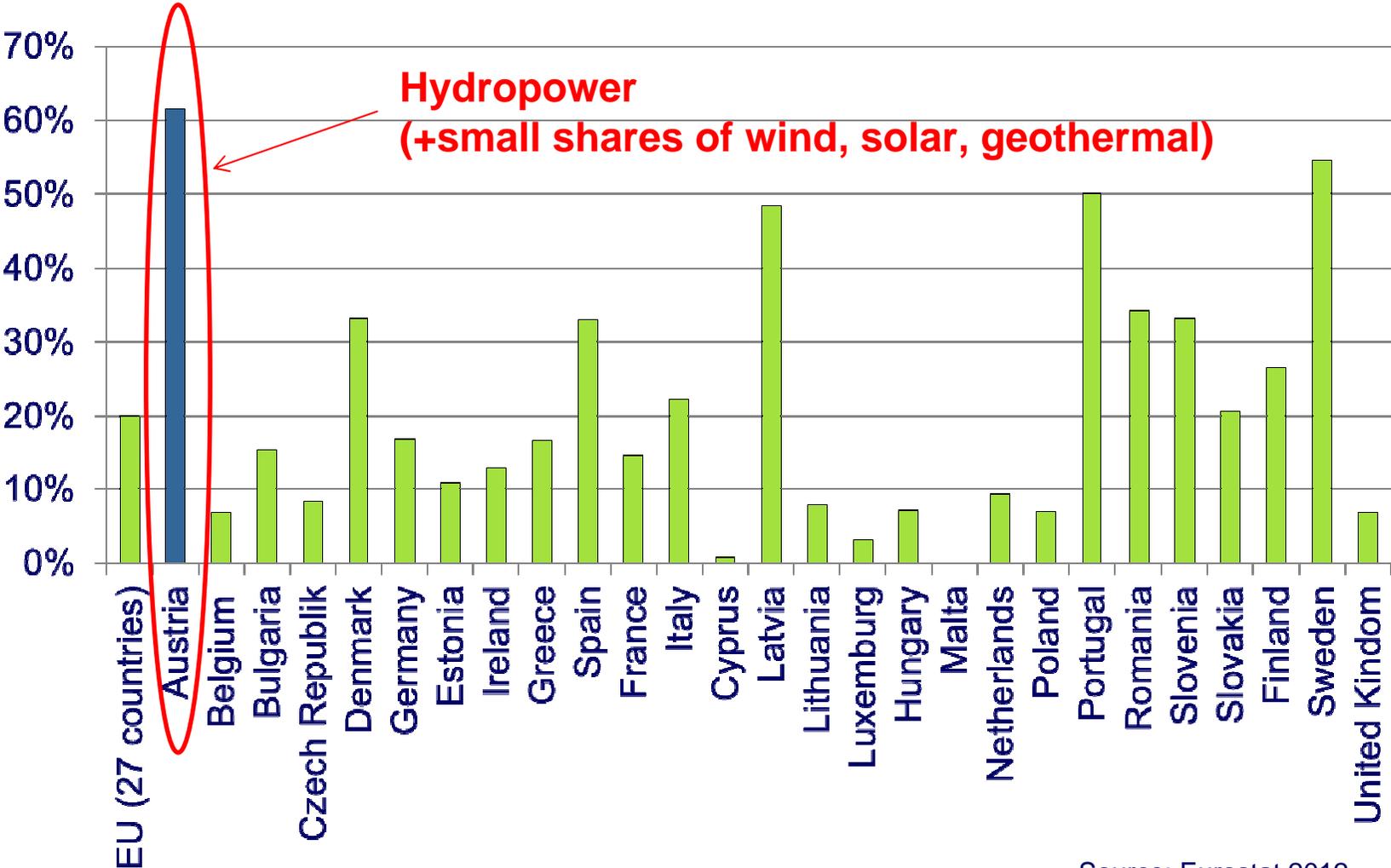
Austria is top 4 of EU-27



Electricity Generated from Renewable Sources



Austria top 1 in the EU – 2010: 61.41%



Source: Eurostat 2012

Promotion of Renewables in Austria



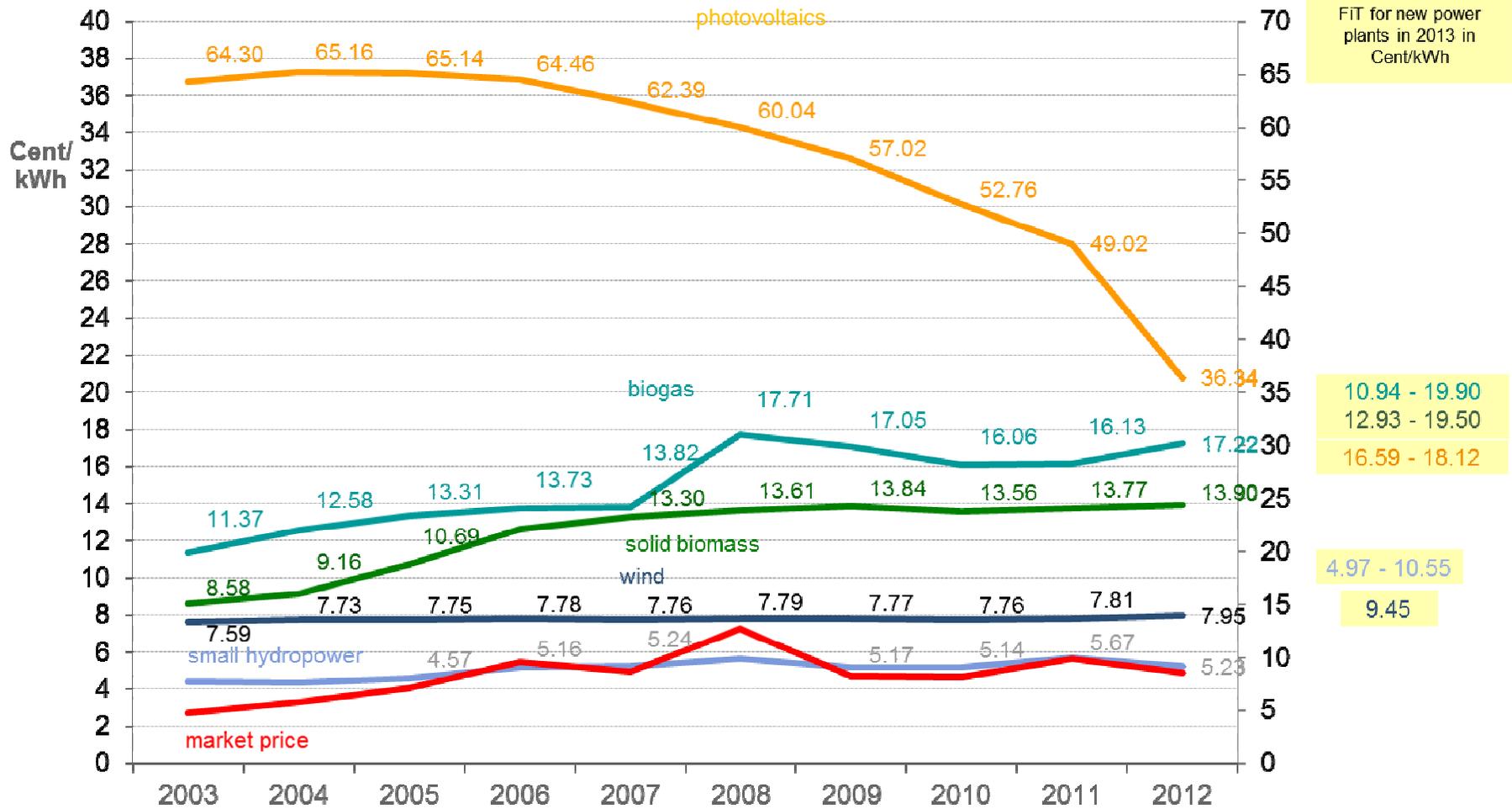
- Austria has a support scheme for electricity generated from renewable energy sources
- The support scheme mainly consists of ‘feed-in tariffs’ (in special circumstances additional subsidies can be granted)
 - Feed-in tariffs are tariffs above market price paid out to producers of green electricity in order to incentivize green electricity production
- The legal basis for the support system is Austria’s Green Electricity Act
- The strategy consists of promoting particularly those renewable technologies which have a prospect of becoming competitive on the market
- Consumers pay:
 - a fixed charge (‘green electricity fee’) of 11EUR/year, a green electricity support contribution (% of charges for grid utilization and losses)
 - household customers pay around 45€ a year to uphold the system

Eligibility for Support

In principle, the feed-in tariff scheme applies to all renewable energy technologies. However, the plant must be registered as a “green electricity plant” (Ökostromanlage) according to § 7 ÖSG 2012

Wind energy	Eligible (§ 12 par. 1 no. 2 a) ÖSG 2012).
Solar energy	Eligible under the following condition: <ul style="list-style-type: none"> ▪ The installation's capacity shall exceed 5 kWp (§ 12 par. 2 no. 3 ÖSG 2012 in conjunction with § 1 par. 1 ÖSET-VO 2012).
Geothermal energy	Eligible under the following condition: <ul style="list-style-type: none"> ▪ Plants shall reach an efficiency of at least 60% (§ 12 par. 2 no. 4 ÖSG 2012 in conjunction with § 2 par. 1 ÖSET-VO 2012).
Biogas	Eligible under the following condition: <ul style="list-style-type: none"> ▪ Plants shall reach an efficiency of at least 60% (§ 12 par. 2 no. 4 ÖSG 2012 in conjunction with § 2 par. 1 ÖSET-VO 2012).
Hydro-power	Eligible under the following condition: <ul style="list-style-type: none"> ▪ The plant's capacity shall not exceed 2 MW (§ 12 par. 1 no. 2 e) ÖSG 2012 in conjunction with § 1 par. 1 ÖSET-VO 2012).
Biomass	Eligible under the following condition: <ul style="list-style-type: none"> ▪ Plants shall reach an efficiency of at least 60% (§ 12 par. 2 no. 4 ÖSG 2012 in conjunction with § 2 par. 1 ÖSET-VO 2012).

Development of Average Feed-In Tariffs



Source: Energie-Control GmbH, Öko-BGV, OeMAG

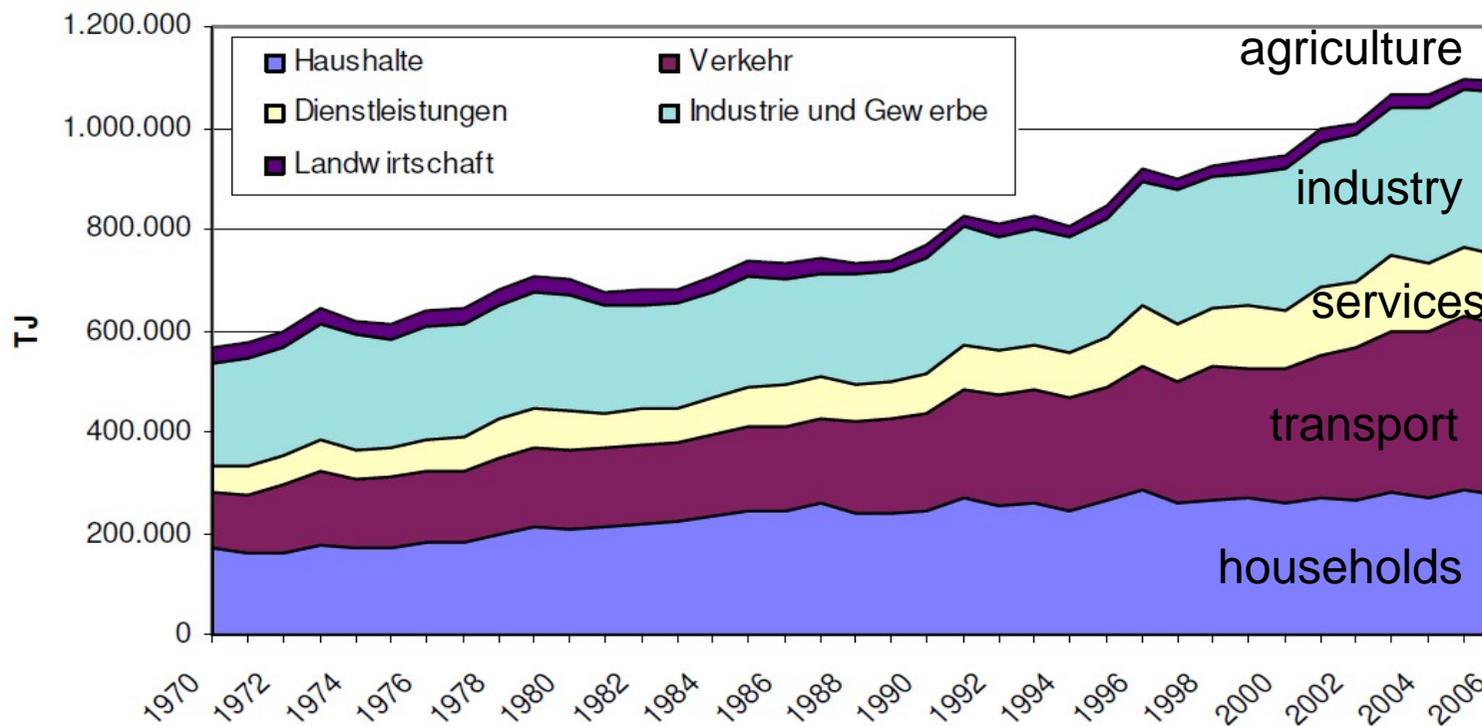


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Energy Efficiency in Austria

Rise in Energy Consumption

- Energy consumption increased heavily in the past years in all sectors
- Final consumption since 1970 almost doubled



Stabilizing final energy consumption

- In order to combat the trend of steadily increasing energy consumption and reach the EU objectives, a target for stabilizing final energy consumption was set as part of the Austrian Energy Strategy
- The target was recommended jointly by the Austrian Energy Agency, E-Control and the Federal Environment Agency

The target for final energy consumption in Austria in 2020 is 1 100 PJ*

Targets by Sector

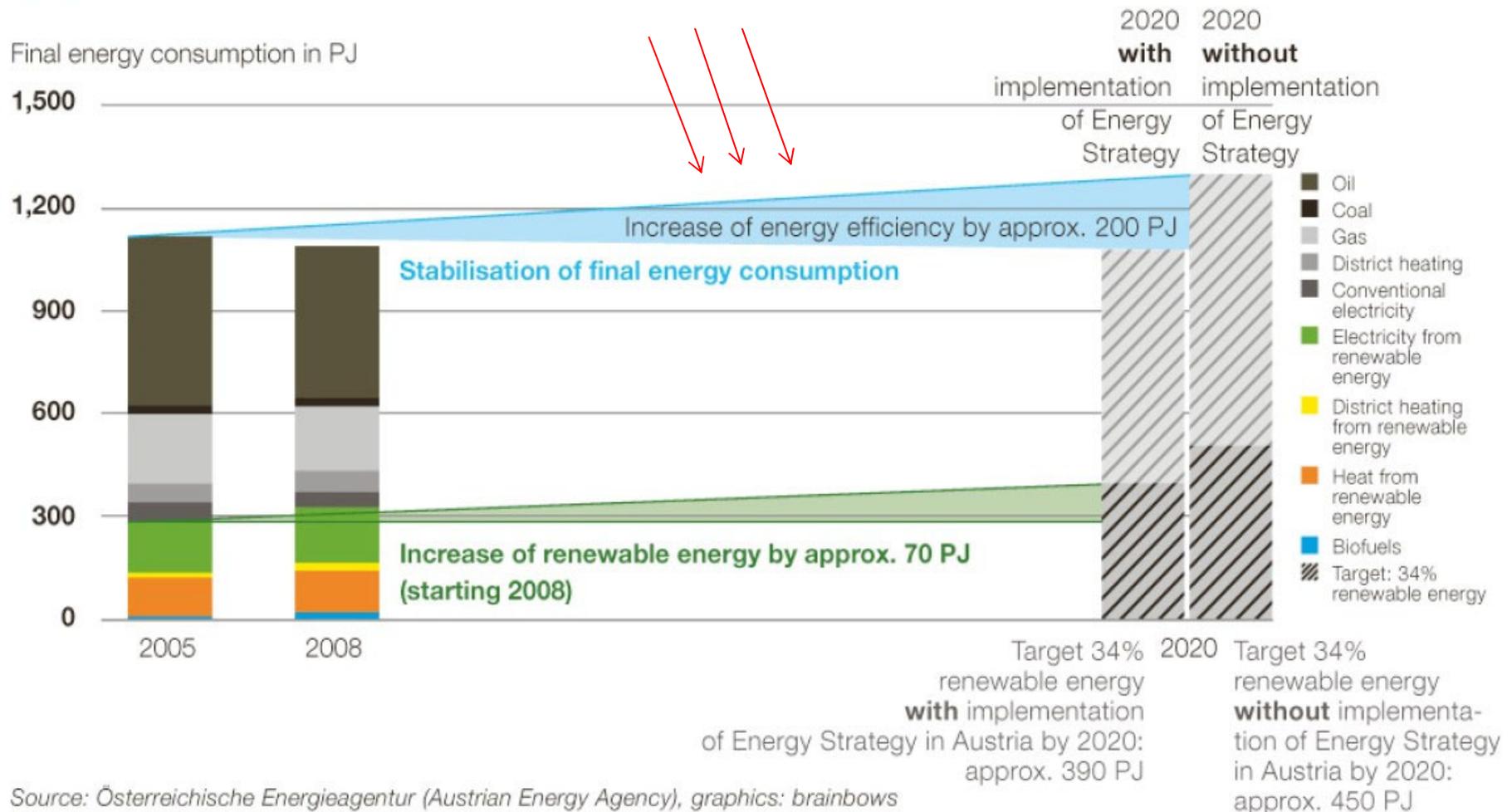
Energy Strategy targets by sector

		2005	Targets by sector	2020
		PJ	Percent	PJ
Buildings	space heating & cooling in residential buildings, offices and factories	337	-10%	303
Residential buildings, factories, offices, farms, small users	excluding space heating and off-road mobility	206	+10%	227
Energy-intensive enterprises	comprises iron & steel, chemical, non-ferrous metals, stone & soil, glass, paper and printing, wood industries (excluding space heating)	178	+15%	205
Mobility	including off-road vehicles	385	-5%	366
		1106		1100

Source: Austrian Energy Agency, Energie Control GmbH, Environment Agency Austria

Energy Strategy Model

Energy Strategy model

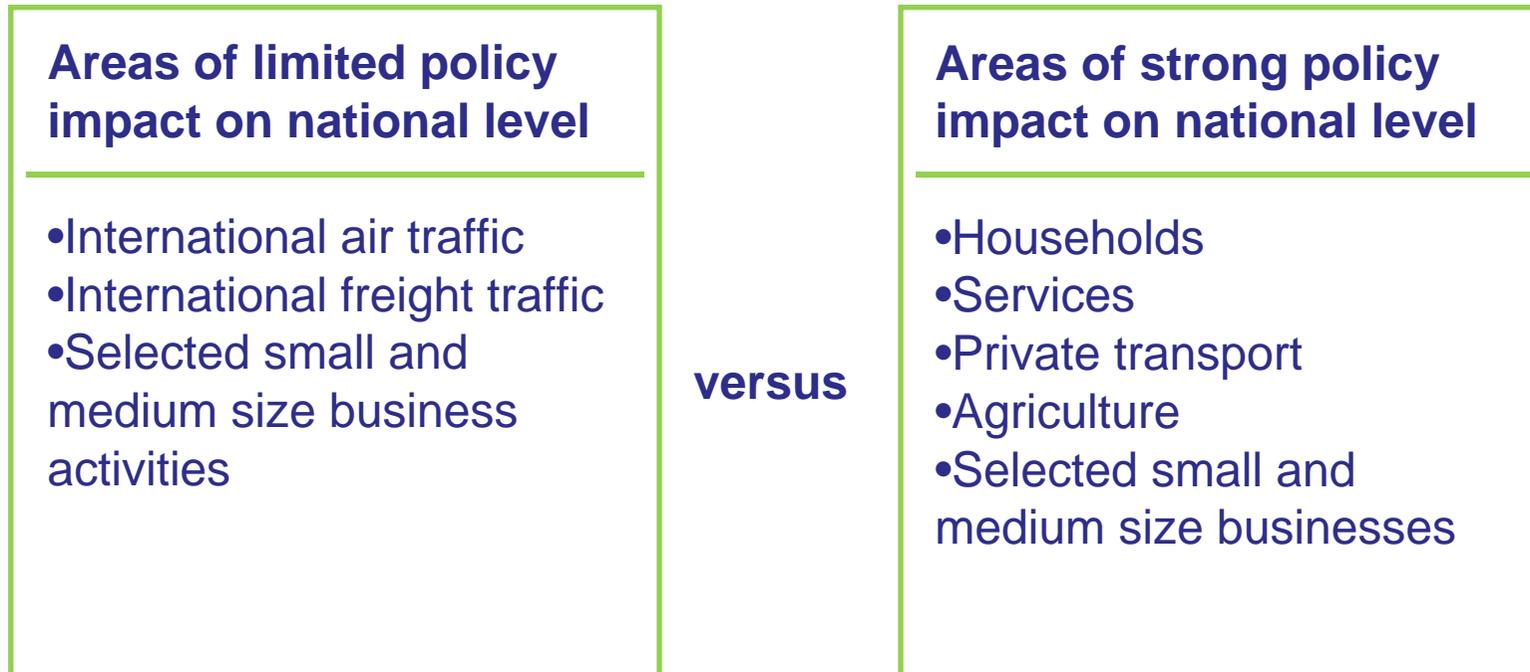


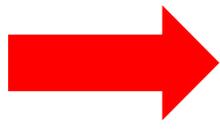
Source: Österreichische Energieagentur (Austrian Energy Agency), graphics: brainbows

Approach



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 **FOCUS ON MEASURES TARGETED AT AREAS OF STRONG POLICY IMPACT ON NATIONAL LEVEL**

Measures

- E-Control was mandated to propose/evaluate energy efficiency measures by the government in the framework of the Austrian energy strategy
- Result: E-Control produced a Greenbook on Energy Efficiency in 2008
- The Greenbook contains a catalogue of proposals on how energy efficiency in different sectors could be improved
- Austria has implemented a number of instruments, some of which date back as far as the early 90s

Selected Measures

Sectors	Title of Measure	Since
All	National programme for climate protection ("klima:aktiv")	2005
Households	Housing support scheme – refurbishment of buildings	1989
Households	Grants for Renovation concerning Energy Conservation	1989
Households	Grants for using renewable energy in the fields of heating and hot water (thermal solar, heat pumps, biomass heating ,...)	1992
Households	Domestic appliances labeling and efficiency standards National energy labels for household appliances and efficiency standards	1993
Transport	Eco Driving Initiative	2004
Transport	Tax Depending on Motor Vehicle's Fuel Consumption (NoVA) (ecological criteria from 2007), and Vehicle Tax (ecological criteria from 2008)	1992 (2011)
Transport	Subsidies for electric vehicles	2009
Industry	Emission Trading Scheme	2005
Tertiary	Energy saving programme for federal buildings	2001

Source: Mure 2012

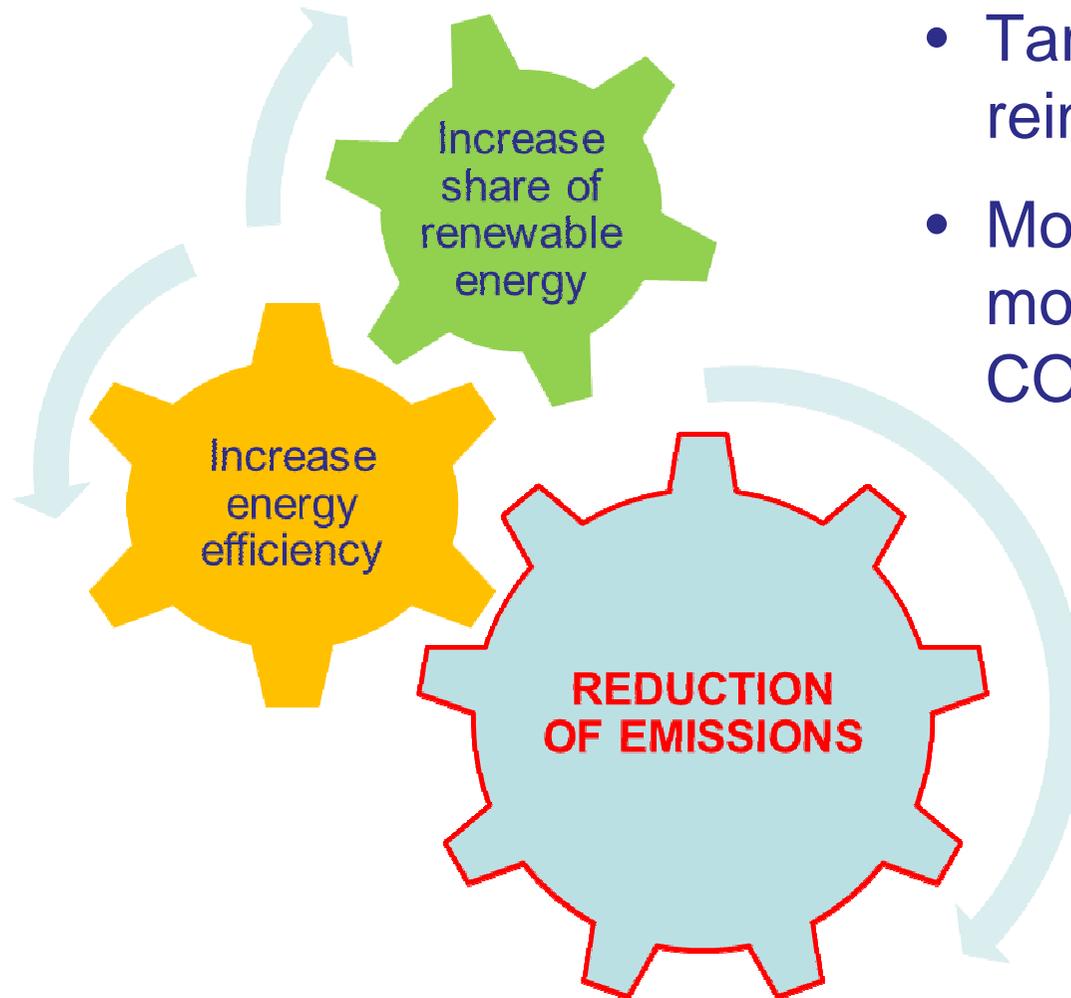
More to come:

- Roll out of Smart Meters until 2019
- Implementation of EU Energy Efficiency Directive mid 2014
- etc.

Interplay of Energy Targets



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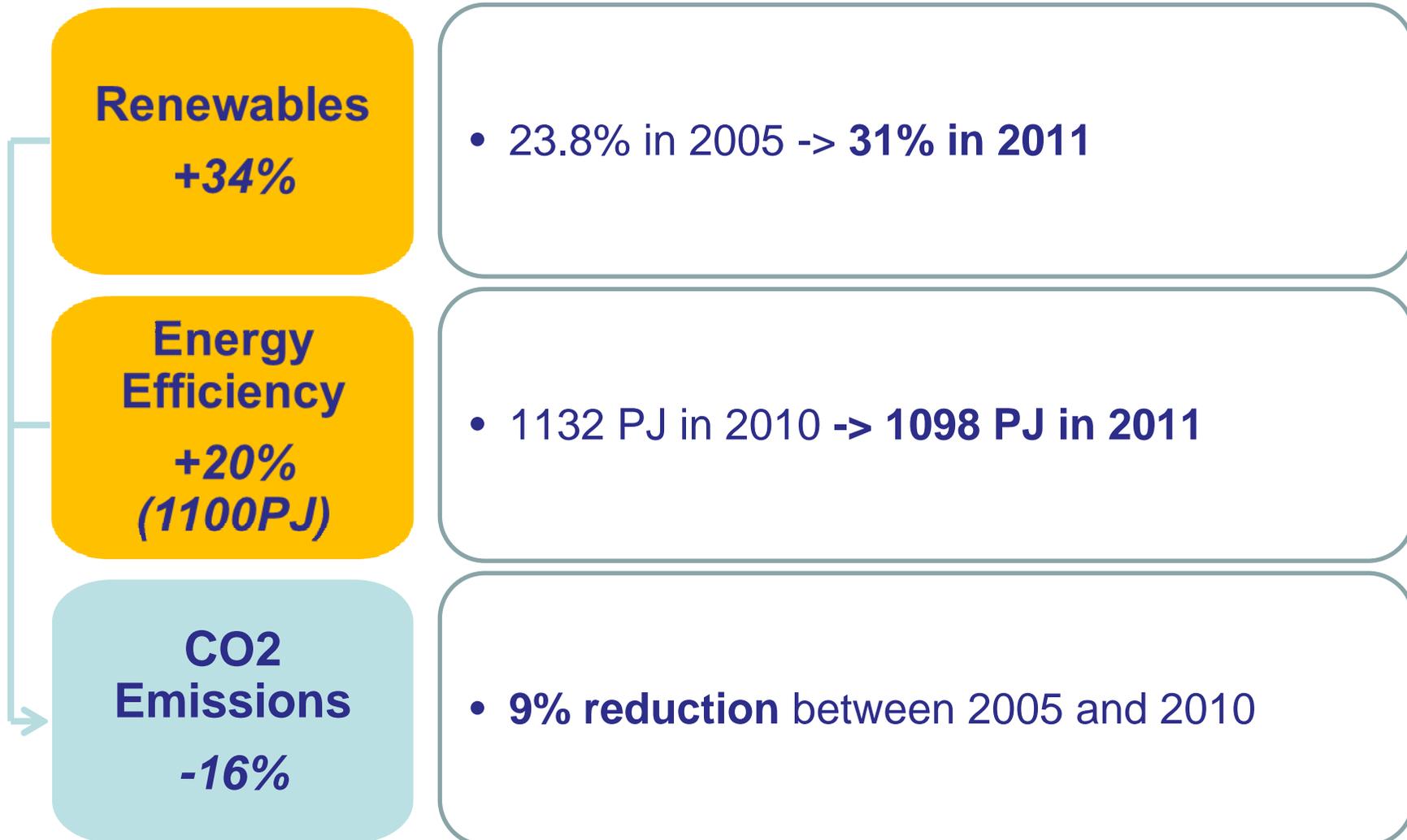


- Targets are interlinked and reinforce each other
- More energy efficiency and more renewables decrease CO2 emissions

Where do we stand?



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Conclusions

Conclusions

- Austria's energy strategy focuses on developing a sustainable energy system
- Renewables, Energy Efficiency and Emissions Reduction are the key tools to fulfill the strategy
- Energy policy in Austria is fully in line with the common objectives of the EU
- Measures implemented so far have yielded positive results
- Although national targets are on track, efforts have to continue to reach the 20-20-20 goals



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