

RES targets & efforts sharing

Authors:

Gustav Resch*, Lukas Liebmann*,
Mario Ragwitz[°]

*Energy Economics Group (EEG),
Technische Universität Wien (TU Wien)

[°] Fraunhofer ISIS

Contact:

Web: <http://eeg.tuwien.ac.at>

Email: resch@eeg.tuwien.ac.at



... based on assessments conducted in the frame of the
Intelligent Energy Europe Projects

towards2030-dialogue (Dialogue on a RES policy framework for 2030)
and DIA-CORE

Introduction

- Strong role of renewables in Europe's future energy mix emphasized already by the „Energy Road Map“ (COM(2011) 885/2): *“Strong growth in renewables is the so-called 'no regrets' option.”*
- General motivations are security of supply, economic competitiveness and environmental sustainability
- The European Council adopted a **RES target of 27% by 2030** based on 40% GHG savings and 27% energy efficiency targets
- Debate on 2030 governance informed by comprehensive impact analysis of all relevant economic drivers caused by renewable energy policy (energy system and macroeconomic impacts)
- Key argument for a RES target: Lower financing costs for capital intensive technologies and better coordination between generation and infrastructure planning

→ Reducing the costs of EU Energy and Climate targets

Elements of determining and implementing the 2030 RES target

- Target design elements

- Target setting procedure / design of target

- Ambition level
- Reference value
- Bindingness of target

- Effort sharing

- Application level (geographic)
- Target allocation procedure (top-down, bottom-up, pledging, benchmarking, pledging-proportionate contribution to EU instrument)
- Sectoral target setting flexibility
- Geographical target setting flexibility

Draft Results: Identification and qualitative analysis of target setting

• RES-target on EU-level

EU council agreement
in October 2014:
27% RES target,
binding at EU level

Application level (geographic)	EU target
MS target allocation procedure	not applicable
Application level (sectoral)	GHG target plus RES and EE target
Bindingness of target	Binding
Target setting flexibility	Fixed at EU level

- Effort shared across all EU electricity consumers. Related to GDP?
- Who is held (legally) responsible in case the target is not achieved?
- How are voluntary contributions by MSs incentivised?

Implementing the EU climate and energy framework - 2nd issue paper

• Policy recommendations

1. Moderate dedicated **support** for renewables is required to reach the 2030 target of 27% renewables.
2. **Benchmarks** of how to break down the EU-wide target to member states should be provided in order to encourage sufficiently ambitious pledges.
3. The concept of an **Energy Union** can be developed further by supporting regional targets for renewables and grid infrastructure.

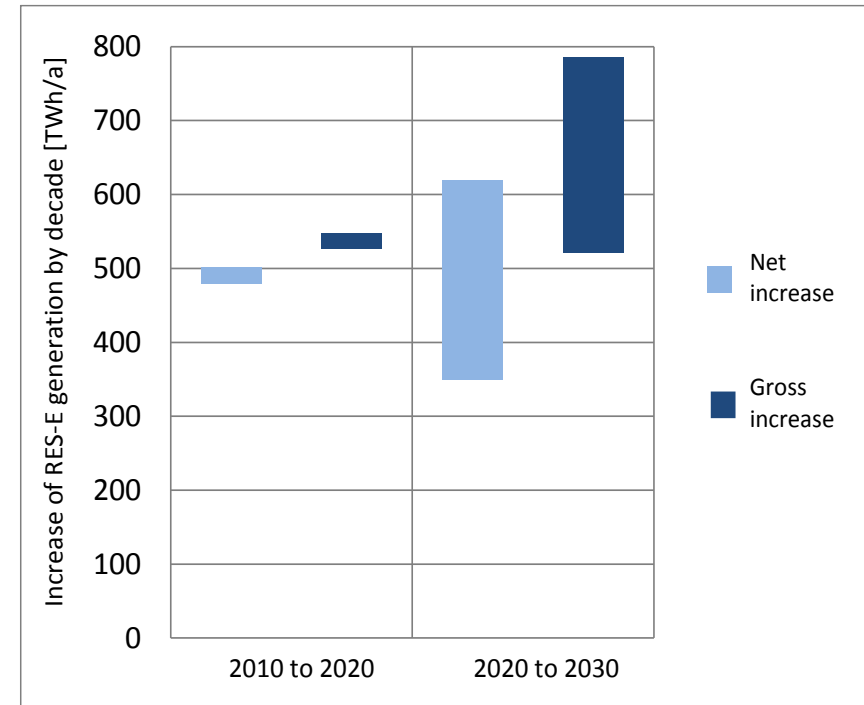
Contributors: Fraunhofer ISI, CEPS, TU Wien, Ecofys, REKK



The EU RES target: Need for dedicated policies?

The ambition level of the 2030 target on EU-28 level

- In terms of the resulting macro-economic impacts the agreed target of 27% is only **moderately ambitious**
 - In terms of overcoming economic and non-economic barriers the ambition level of a 27% target should not be underestimated due to the need for **replacement of RES** plants build before 2010
- ⇒ **Moderate but dedicated support for renewables will be required to reach the 2030 target of 27% renewables**



Net and gross increase of renewable electricity generation at EU level by decade (2010-2020 vs. 2020-2030)

The EU RES target: Need for national planning?

- What are the requirements for the future RES governance?
 - EU target should be *“fulfilled through Member States contributions guided by the need to deliver collectively the EU target”*
 - All Member States should contribute → need to define their fair share
 - Member States should be aware that an EU-wide binding target means (financial) commitment for all Member States
 - Increased flexibility for Member States (compared to 2020 framework)
 - RES investors will need transparency and reliability to deliver the target → need for transparent and reliable planning framework; enforcement of EU target
 - Reliable national commitments also needed to coordinate investments in grids and generation assets
 - National energy and climate plans will be an important element

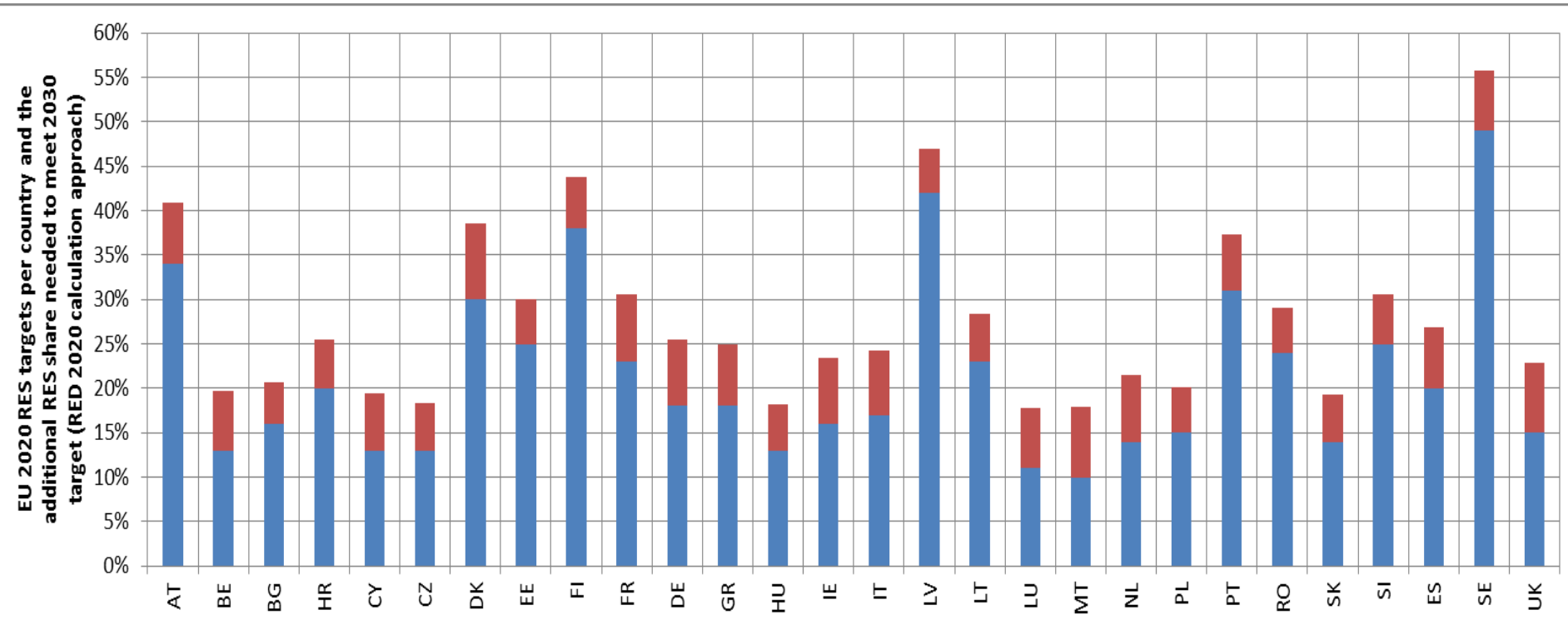
The EU RES target: Need for EC guidance on national contributions?

• How to break down the EU wide target?

- EU target allocation to smaller regional entities via **top-down** or **bottom-up** approach
 - Under a **top-down allocation** individual targets typically sum up to the overall target of 27%
 - **Individual (bottom-up) pledges** may fall short of the overall EU-target => in this case financing mechanism or iteration of pledges would be required to close the gap
- **Benchmarks** by the EC (on regional or national targets) could better guide the pledging procedure and require MS to specify a higher or a lower target
- **Combining** national or regional **pledges with** a top-down **benchmark** provide quantitative indication for a potential national or regional target
- A **first benchmark** could be based on the logic of the **2020 target allocation** (flat-rate increase + econ. strength + past efforts) + other transparent criteria (costs, potentials)
- ⇒ **EC should publish benchmarks /indicators of how to break down the EU-wide target in order to encourage sufficient pledges of member states**

The EU RES target: Need for EC guidance on national contributions?

- How to break down the EU wide target?
 - Base case is the 2020 allocation method



How to fill a potential gap between target and pledges?

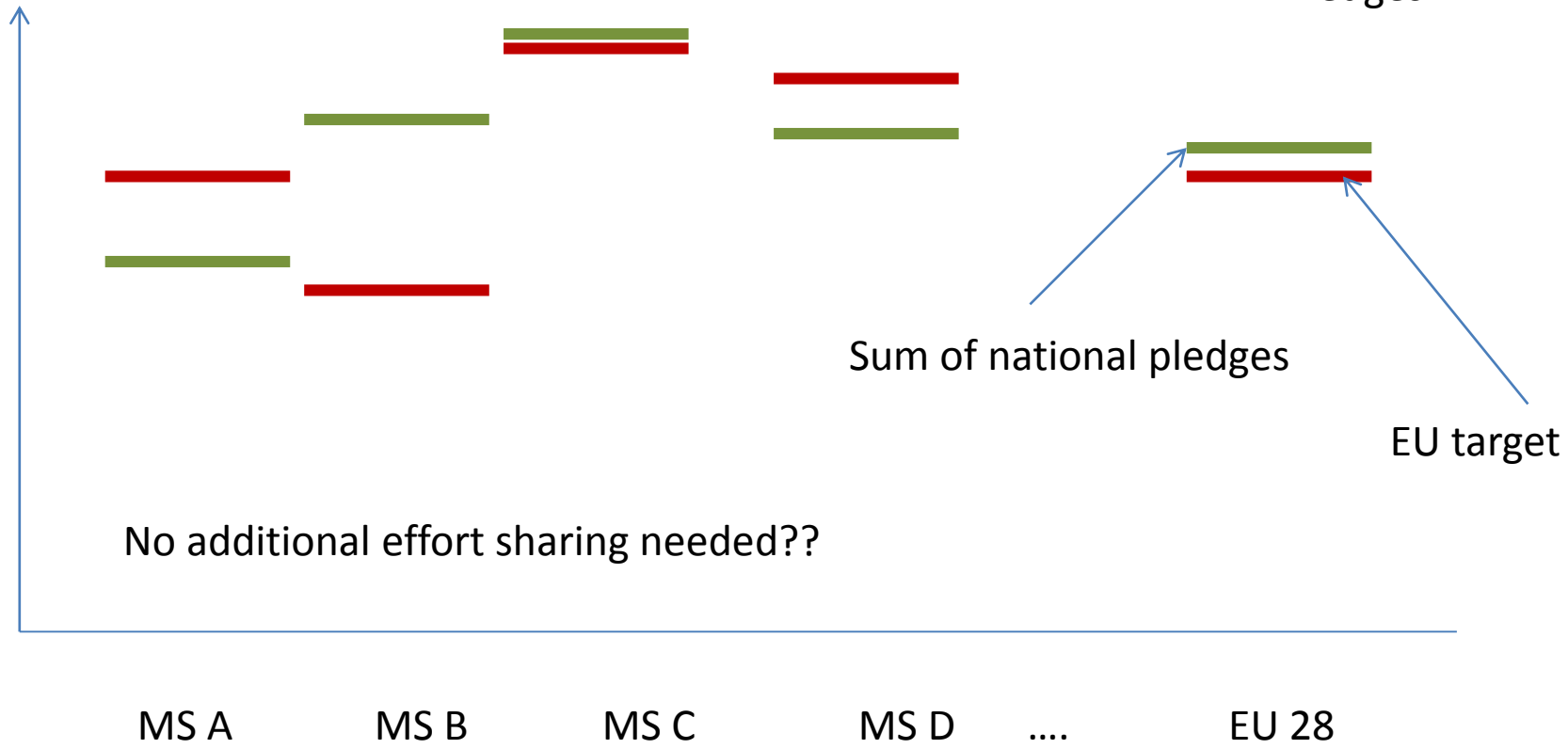
- National pledges as main tool for distribution of EU level target to MS level
 - Pledges may or may not add up to EU target of 27%
 - In case that pledges do not add up a pledge and review procedure could be implemented
 - Remaining gap will have to be filled by an EU gap-filler instrument
- Differentiate between
 - Pledging gap
 - Compliance gap

Effort sharing for a potential gap – benchmarks versus pledges

Option 1: national pledges add up to the EU target



Benchmarks :

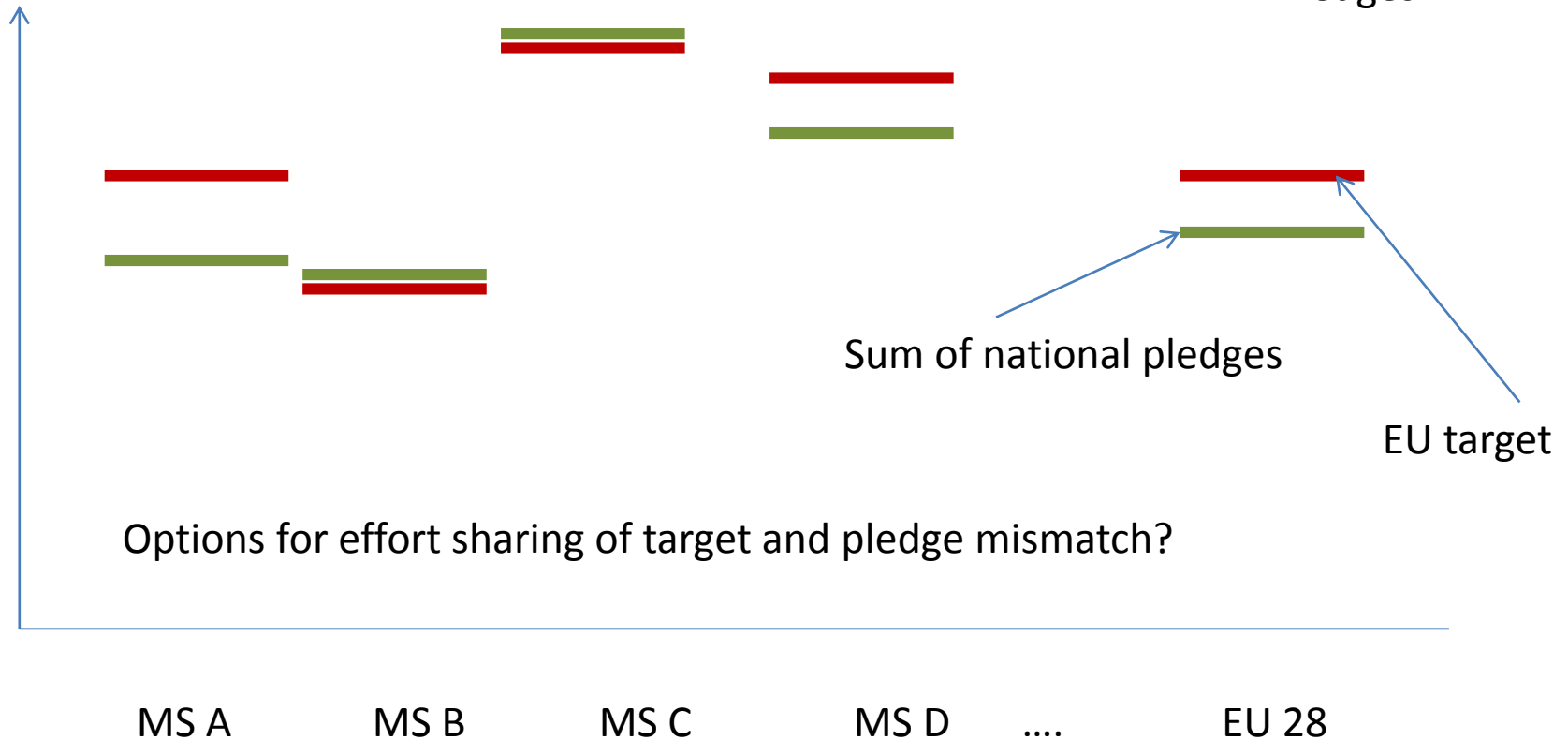
Pledges:



Effort sharing for a potential gap – benchmarks versus pledges

Option 2: national pledges do not add up to the EU target

Benchmarks : 
Pledges: 



How to fill a potential gap between target and pledges?

- Requirements for the allocation of the MS contribution to the gap filler:
 - Minimize pledging gap by enabling conditions and proper pledging incentives
 - Minimize compliance gap by enabling conditions and proper compliance incentives
 - Have to take the fear of paying twice into account in designing the way to finance the gap filler
- MS contributions to the gap-filler need to account for ambitious pledges in order to minimize pledging gap
- The commitment level of the pledges needs to be sufficiently high in order to minimize compliance gap

Regional targets as a step towards an Energy Union

- Energy Union Communication (Feb. 2015):
 - EC will facilitate cooperation and convergence of national support schemes
 - encourages regional approaches to ensure compatibility with internal energy market
- Top-down vs. bottom-up convergence
 - **Top-down:** prescription of specific types of instruments, harmonised EU-wide support scheme
 - **Bottom-up:** increased coordination of national policies, regional RES support schemes
- In terms of target allocation: **regional targets** as a first step towards policy convergence and an Energy Union
 - Groups of several MS could pledge themselves to a joint or regional target
 - Regional targets require coordination of national energy policies
 - MS would assess and understand **cross border effects** => enables more integrated planning approach of supply and grid infrastructure (avoid loop flows)

Thanks for your attention!

Contact:

Dr. Gustav Resch

Email: resch@eeg.tuwien.ac.at

Interested in further background information?

→ www.towards2030.eu

*Issue Paper No. 2**: Implementing the EU 2030 Climate and Energy Framework – a closer look at renewables and opportunities for an Energy Union

Issue Paper No. 4 on benchmarks to facilitate sharing the renewables effort



Interested in the dialogue process?

→ <http://platform.towards2030.eu>

