

# I SETTING THE TARGETS

Part I: provides an overview of the EED and its objectives and targets. It explains how targets should be established and used to drive efficiency measures.

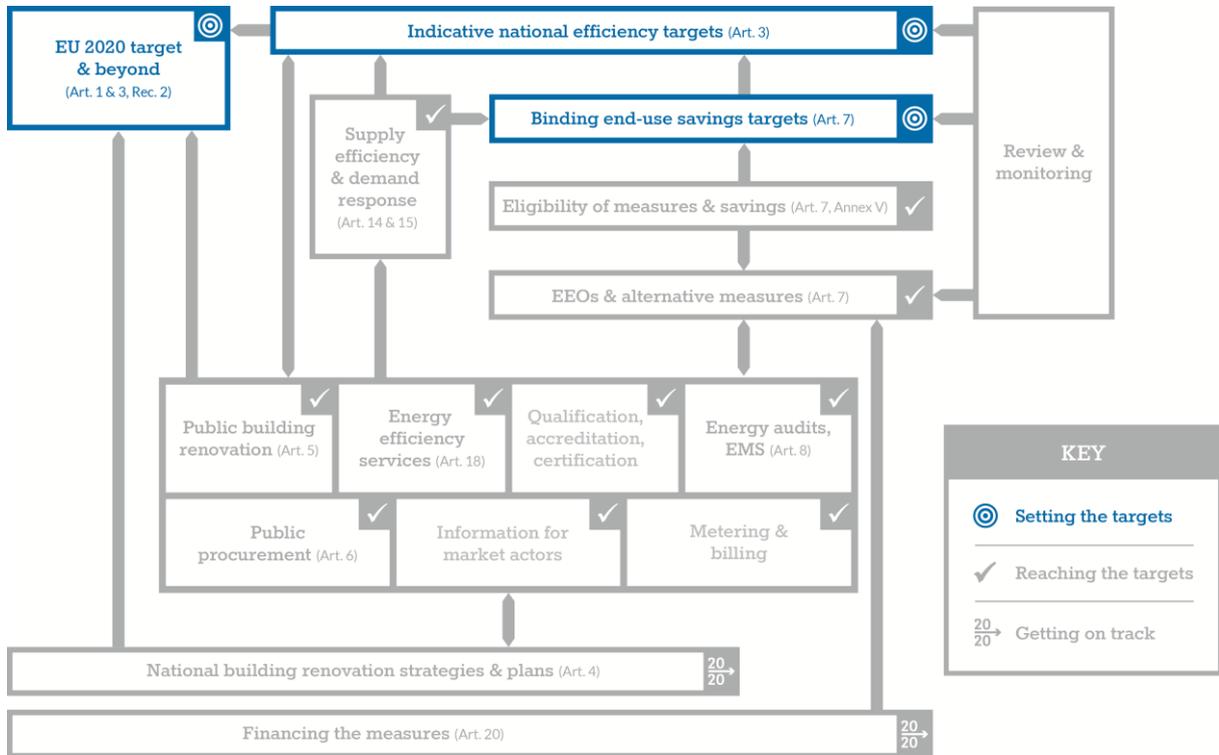


Figure 2 – Guidebook Overview Map: Objectives and targets

## I.1 Summary of Coalition recommendations

Setting robust and coherent targets in a transparent way, as required by the EED, is essential to drive the EED measures, realise the saving potentials and pave the way beyond 2020. Therefore we recommend the following actions:

1. Verify that the 2020 indicative national target (Article 3, reported to the European Commission by 30 April 2013) is:

- Building on existing national energy and climate policies for 2020 and beyond;
- Adequate to realise the national cost-effective potentials of energy savings;
- Making a clear and adequate contribution to the EU 20% target in 2020; and
- Considered a first step towards 2030 and 2050 targets.

**Note:** By the end of June 2014 the Commission will assess whether the EU's 2020 target is likely to be met (Article 3.2). If the Commission concludes that this is not the case, it will make further proposals to ensure the gap is closed (Article 24.7).

2. Ensure that the binding energy end-use savings target (Article 7, which should be defined by 5 December 2013):

- Demonstrates how it will help achieve the indicative national target for 2020 in combination with other measures (Article 3);
- Uses the minimum number of exemptions, namely the exclusion of transport or discounting savings realised in the past (early actions); and
- Takes into account the benefits of putting in place progressively increasing annual energy savings and the targets that are likely to be set for after 2020.

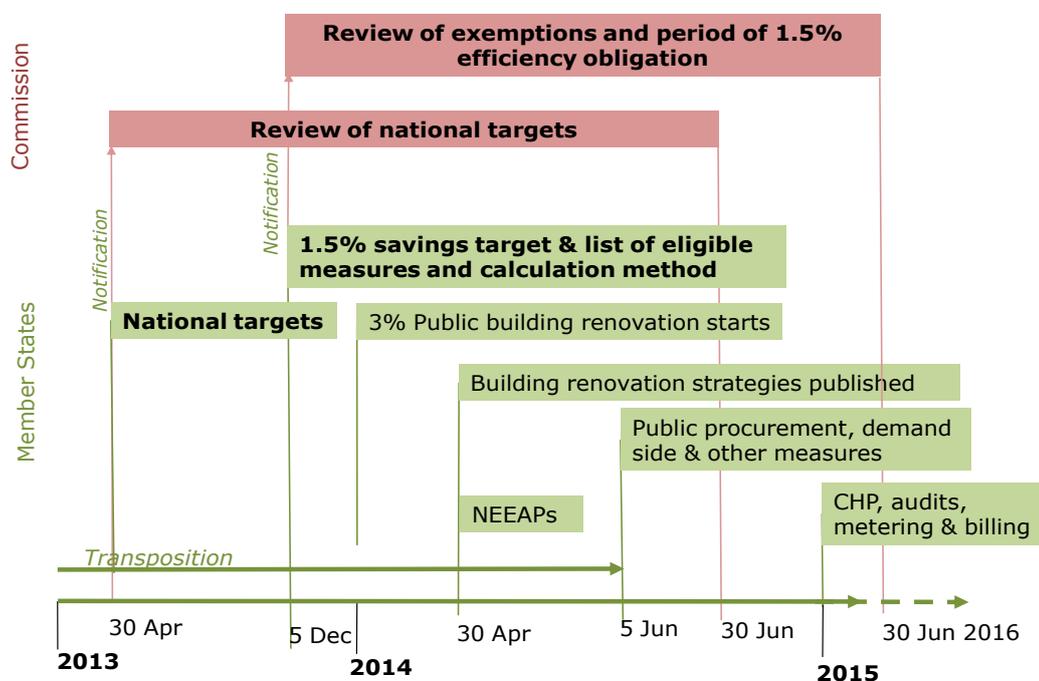


Figure 3 – Relevant deadlines regarding targets (in bold)

## I.2 Background

Measures put in place for implementing the specific EED requirements must, in addition to fulfilling the specific minimum legal requirements for those measures, ensure in their totality that objectives and targets are achieved.

Targets in EU policies and legislation play an important role in:

- Creating high level accountability;
- Allowing benchmarking and monitoring of results;
- Sending long-term signals to investors; and
- Providing guidance for further policymaking.

The EED contains several targets and sets for the first time in its Article 7 a binding energy end-use savings target for MSs. This complements the EU's climate and energy package, which so far only includes legally binding greenhouse gas (GHG) and renewable energy (RES) targets, and goes beyond the 2006 Energy Services Directive (2006/32/EC)<sup>1</sup>.

The EED's three main cross sectoral targets<sup>2</sup> are:

1. **The 20% EU energy savings target.** The EED's overarching objective (Article 1.1) is "to ensure the achievement of the Union's 2020 20% headline target on energy efficiency and to pave the way for further energy efficiency improvements beyond that date". The 20% target is defined in Article 3.1(a) as a maximum of 1483 Mtoe primary energy or 1086 Mtoe final energy consumption in 2020<sup>3</sup>.
2. **The indicative national efficiency targets.** In terms of making this operational, the EED stipulates that MSs must set their own overall indicative national energy efficiency targets, which the Commission will assess as sufficient or not to reach the EU target and thereafter consider proposing a binding target (Article 24.7).
3. **The national binding target for end-use savings.** Article 7 sets a general binding target to deliver 1.5% cumulative annual energy end-use savings.

As these targets are closely linked, MSs will have to account for their interaction and ensure that the measurement and verification methods used for the different targets are coherent and compatible with one another as much as possible. In addition, the setting of the indicative national target must be framed so that the MS makes its full, proportional contribution to the overall EU goal for 2020. The setting of the binding element required by Article 7 can cover a significant percentage of the volume of savings that the indicative national target must deliver.

### Efficiency, savings, consumption targets?

Different terms are used, often with little precision or accuracy, to express targets in the area of energy efficiency policy. The Coalition adheres to the definitions provided in the EED, which establish a clear relation between 'energy savings' and 'energy efficiency'. Specifically, energy savings are defined as the result of improvements of energy efficiency. Savings are measured as the difference in energy consumption before and after the efficiency improvement has taken place, taking into account the impact of external factors such as weather or level of economic activity. Using these definitions, the Coalition calls for a binding energy savings target, as an absolute amount of energy saved, to be achieved principally through efficiency improvements that will result in a reduction of energy consumption compared to a baseline.

<sup>1</sup> The energy savings target set out in Article 4 of Directive 2006/32/EC requires MS to "adopt and aim to achieve" an overall national indicative energy savings target of 9% for the ninth year of application of the Directive. The Article thus requires MS to take measures intended to meet the target. Because most of this Article has not been repealed by the EED, the 9% target for 2016 is still in effect, and the measures adopted to reach it shall be taken into account when implementing the EED.

<sup>2</sup> There is also a quantified sectoral target for central government buildings set in Article 5. MSs must ensure the renovation to minimum standards of 3% of the useful floor area on an annual basis of these buildings, or, alternatively, take other measures providing at least the equivalent energy savings in the buildings.

<sup>3</sup> The target, how it is derived and the remaining gap are illustrated in Figure 5.

### **Important definitions**

The following definitions from Article 2 of the EED are worth recalling here as they are relevant to this section of the Guide:

**'Primary energy consumption'** means gross inland consumption, excluding non-energy uses (*Article 2.2*).

**'Final energy consumption'** means all energy supplied to industry, transport, households, services and agriculture. It excludes deliveries to the energy transformation sector and the energy industries themselves (*Article 2.3*).

**'Energy efficiency'** means the ratio of output of performance, service, goods or energy to input of energy (*Article 2.4*).

**'Energy savings'** means an amount of saved energy determined by measuring and/or estimating consumption before and after implementation of an energy efficiency improvement measure, whilst ensuring normalisation for external conditions that affect energy consumption (*Article 2.5*).

## I.4 Indicative national energy efficiency targets (Article 3)

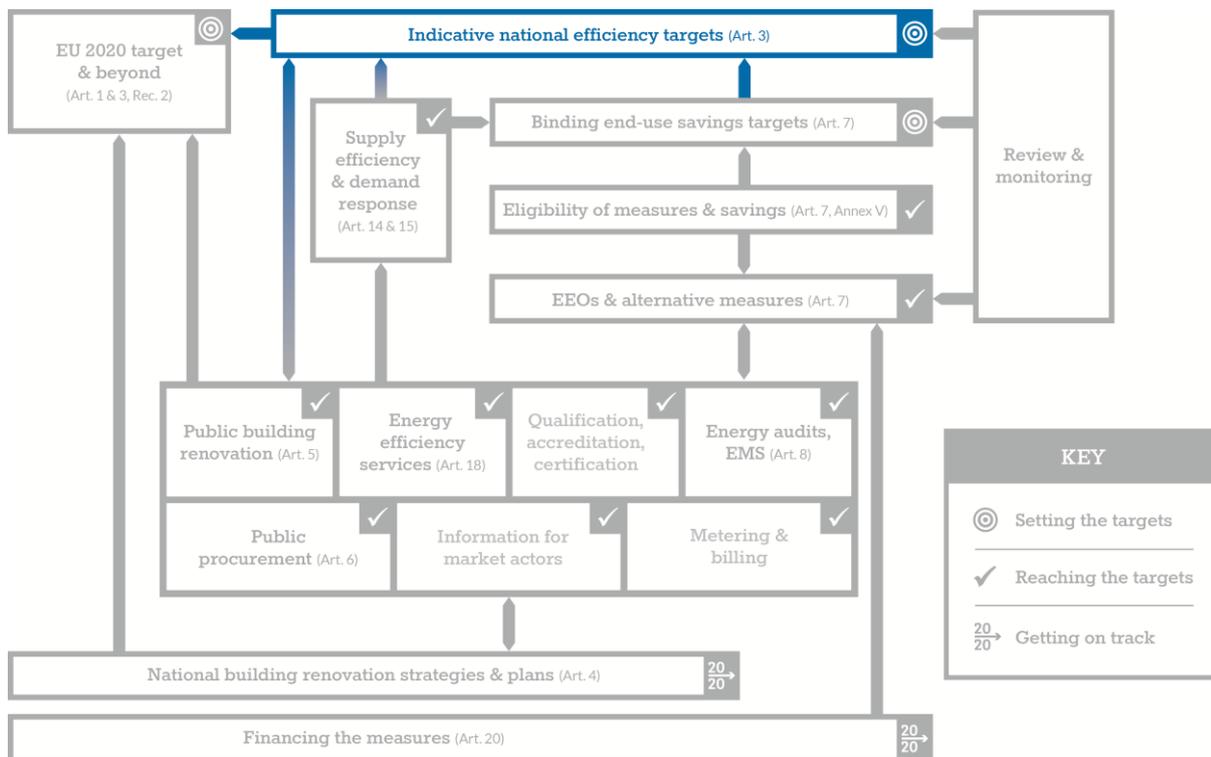


Figure 8 – Guidebook Overview Map: Indicative national efficiency targets

### I.4.1 Main requirements

MSs were required to set indicative national energy efficiency targets that are aligned with the EU target. The targets must be expressed in both primary and final energy consumption by 2020 in order for the Commission to be able to assess and compare them with the EU target.

Member States should have communicated these targets to the Commission for the first time by 30 April 2013. Under Article 24.1, Member States are required to report their progress on achieving their national energy efficiency targets to the European Commission before 30 April of each year from 2013.

In setting their targets, MSs had to do the following:

- Choose a methodology based on primary or final consumption, primary or final savings or intensity.
- Ensure alignment with the EU target: the level of consumption resulting from the methodology and level of ambition chosen should account for a maximum of 1483 Mtoe (primary energy consumption) / 1086 Mtoe (final energy consumption) by 2020.
- Explain how the target was set, why a certain level was chosen and which data were used to define this level, taking into account:
  - measures provided for in the Directive, for example Article 7 (see chapter I.5);
  - other EU measures such as ecodesign; and
  - national measures.

Among the considerations permitted to account for national specificities were:

- Remaining cost-effective energy saving potential and early actions, provided the latter can be proven to have a continued impact on energy savings in 2020<sup>4</sup>: MSs could set their target in a way that ensured that the most cost-effective energy savings measures were prioritised.
- GDP evolution and forecast: MSs could take into account their specific economic developments, in particular their GDP if they chose to set energy intensity targets. If energy intensity was used, it had to be calculated on a disaggregated level in order to be able to correct for structural effects, such as the increased or decreased share of less energy-intensive goods and services.
- Parameters related to the energy mix structure, including changes in energy imports and exports and CCS: MSs were allowed to take these into account when designing targets and their expression in terms of energy consumption. For example, a generalised adoption of CCS technologies would deliver GHG cuts but also considerably decrease the efficiency ratio of electricity generation. The proportion of fossil fuel, nuclear or renewable electricity generation directly influences the conversion factor between final and primary energy.

#### **I.4.2 The 2014 review of indicative national targets**

By 30 June 2014 the Commission has to assess the progress and the likelihood of achieving the EU target of 1483 Mtoe primary and 1086 Mtoe final energy consumption.

The details of this review are laid down in Article 3.3 stating that the Commission shall:

- Add up the reported indicative national targets (as given in primary and final consumption);
- Assess the reliability of these targets to evaluate overall progress towards the EU target based on MS reports under Articles 24.1 (target progress reports) and 24.2 (NEEAPs);
- Carry out its own complementary analysis based on an assessment of energy statistics and modelling exercises for future energy trends; and
- Compare the results (aggregation of indicative national targets once verified as robust and made comparable) with the linear trajectory towards a 1483/1086 Mtoe consumption in 2020.

#### **I.4.3 Setting the targets**

Member States were required to set and report their indicative national targets for 2020 to the European Commission by 30 April 2013. Using the data published as of September 2013, the Coalition for Energy Savings has undertaken an initial assessment of whether national targets will achieve the EU's target of 20% energy efficiency.

Figure 9 compares the final energy targets reported with the PRIMES 2009 projections for final energy consumption in 2020, which are updated projections for energy consumption from the PRIMES 2007 projections and take into account the impact of the economic crisis and policies in place by 2009. Figure 9 also shows the national targets against estimated savings that should be achieved by full implementation of the Article 7 requirements in the EED (the binding end-use energy savings target)<sup>5</sup>, the latest (as of September 2013) ecodesign and labelling measures<sup>6</sup> and the proposed standards for CO<sub>2</sub> emissions from vehicles<sup>7</sup>.

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<sup>4</sup> This is to ensure coherence with Article 7.2(d).

<sup>5</sup> See chapter I.5 and Table 1 for an explanation of the Article 7 requirements and expected savings.

<sup>6</sup> Ecodesign and labelling measures are estimated to contribute to energy savings by roughly 2% compared to the PRIMES 2009 reference scenario for 2020.

% final energy savings compared to PRIMES 2009 reference scenario

### Reported national energy efficiency targets for 2020 Additional savings required to reach the targets Final Energy

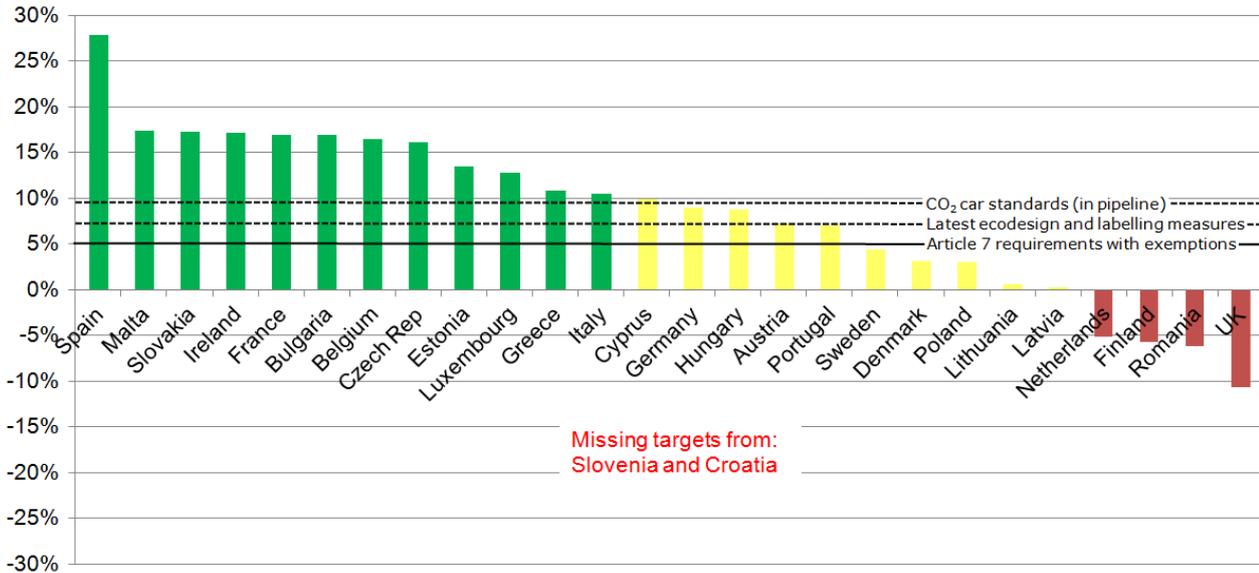


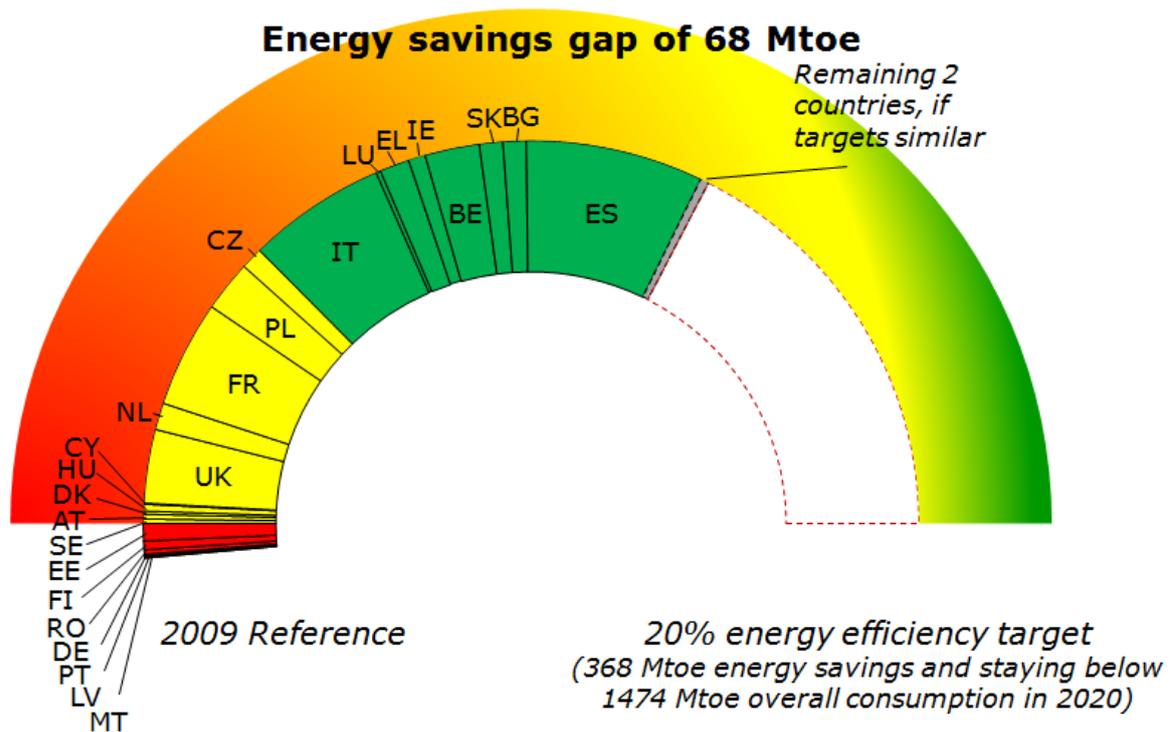
Figure 9 – Energy savings from national indicative targets compared to estimated energy savings from other measures (September 2013)

Green indicates targets that would achieve significant energy savings beyond the minimum requirements of the EED. Yellow and red indicate targets that would be easily overachieved with full implementation of the binding end-use energy savings targets, ecodesign and labelling measures and proposed standards for CO<sub>2</sub> emissions from vehicles.

Overall, the Coalition’s Gapometer (Figure 10) shows that the total of the primary energy savings targets reported as of September 2013<sup>8</sup> would not be enough to achieve the EU’s 20% energy savings target for 2020, leaving a gap of 68 Mtoe. For those Member States where information is not available on their target, it is assumed that they would set a target similar to those available (they are shown in grey). Figure 10 also shows that the targets in red would increase the effort required to achieve the target by increasing the gap – in other words, not resulting in any energy savings.

<sup>7</sup> The proposed standards for CO<sub>2</sub> emissions from vehicles are estimated to contribute to energy savings by roughly 2% compared to the PRIMES 2009 reference scenario for 2020.

<sup>8</sup> Due to the lack of data, it was not possible to include Croatia in this analysis. Therefore the original 1474 Mtoe primary energy consumption and 368 Mtoe primary energy savings figures remain as the reference for this figure.



NOTE: Since the PRIMES 2009 projections for Croatia have not been published the original 1474 Mtoe primary energy consumption and 368 Mtoe primary energy savings figures remain as the reference for this figure and Croatia is not included in this figure.

Figure 10 - Gapometer showing the impact of the indicative national primary energy efficiency targets on reaching the EU energy savings target for 2020 (September 2013)

## I.4.4 Legal checks and recommendations

### Legal checks

#### 1. Request information on how the indicative national energy efficiency target was set in April 2013, and check whether the following minimum information is available and adequate:

- An explanation of how the target is converted into absolute final and primary energy consumption levels in 2020 (see Article 3.1, first paragraph). MSs have to provide at least the projections of GDP and energy demand, if the national target is expressed in energy saving volumes or energy intensity improvements;
- An explanation of how the target and progress contribute to achieving the EU 2020 20% energy savings target (see Article 3.1(a) and Annex XIV Part 1). In order to assess whether this contribution is appropriate we recommend using the latest EU reference projections for energy demand for the MS until 2020<sup>9</sup>; and
- An explanation of how EU measures (both measures under the EED and other measures) achieve the target, by comparing the energy savings achieved by measures to the energy savings target (see Article 3.1(b)-(d)).

### Good practice recommendations

#### 1. Ask for the indicative national target to:

- Be at least as ambitious as existing national objectives;

<sup>9</sup> European Commission, *EU energy trends to 2030 – Update 2009*, 04.08.2010.

- Be meaningful by going beyond the energy savings achieved by minimum measures;
  - Be adequate to realise the national cost-effective potentials of energy savings;
  - Make a clear and adequate contribution to the EU 2020 target; and
  - Be considered as a first step towards 2030 and 2050 targets.
- 2. Review annual reports each year** to check that the target is achieving energy savings and that the reports fulfil the requirements of Annex XIV, Part 1 of the EED.
  - 3. Remind implementers that the Commission will review indicative national targets by the end of June 2014 to assess whether the EU's 2020 target is likely to be met and whether to propose binding national targets.**

The EED does not impose a legal obligation on the level of indicative national targets. However, the requirement to “take into account” the EU target implies that each MS should take up its fair share of the 20% so that the levels of consumption resulting from the 28 targets add up to the level of EU target. One possible way of sharing the effort is to set for each country a target equivalent to 20% energy savings in 2020 compared to specific national projections from 2007 (see Figure 11).

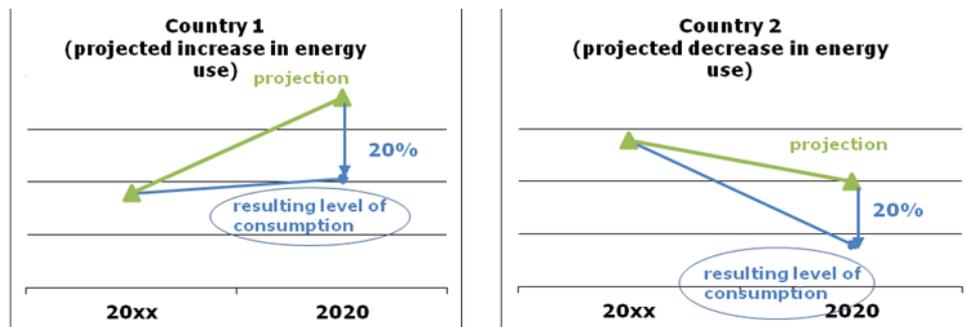


Figure 11 – Illustration of an implicit effort-sharing of the EU target methodology