Proposals for a 2030 Framework for Climate and Energy Policies: Consultation Response by ClientEarth

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ClientEarth

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SUMMARY

ClientEarth believes the EU is at a critical juncture in its pathway towards building a low carbon, energy secure and competitive European economy by 2050. Although the EU's 2020 framework provided international leadership in pioneering effective climate and energy governance, events since its launch make two facts clear:

- The latest scientific evidence indicates that atmospheric concentrations of CO_2 have now reached record levels.[1]

- Despite consensus that rapid and radical mid-century decarbonisation will yield profound climate, energy security and economic dividends, EU governance of this process is not yet sufficiently robust to deliver this critical outcome.

Despite its position as the 'cornerstone' of EU greenhouse gas (GHG) reduction policy, the Emissions Trading Scheme (ETS) is has thus far proved unable to drive investment in low carbon technologies and mitigate the risk of high carbon lock in. Meanwhile, regulation of the other 58% of Europe's non-traded sources of GHG is minimal. Despite compelling evidence that energy efficiency is the single most potent lever of climate mitigation, energy security and competitiveness, EU governance of action to drive energy savings is feeble. Despite being critical to unlocking the most cost-effective pathway to energy decarbonisation, Member State progress towards completing the Internal Energy Market is far too slow. Despite consensus that energy prices will continue to rise at least until 2030 and that public opposition is already a potent barrier to the low carbon transition, EU law does little to require Member States to mitigate injustice caused by the energy transition. Despite the complexity and importance of the decarbonisation process, EU oversight of national compliance with the EU climate and energy acquis is weak. The 2020 framework is furthermore characterised by missed opportunities, incoherence and poorly managed trade offs that further weaken its traction.

If Europe is to meet its decarbonisation, energy security and competitiveness 'trilemma', EU climate and energy governance must be extended to 2030 and substantially matured. We believe the hallmarks of a credible and cost-effective 2030 policy framework are that it is:

- Founded on an ambitious GHG reduction target informed by the latest science

- Embedded in the rule of law

- Ensures effective compliance monitoring and enforcement of the rule of law

[1] Concentrations of the greenhouse gas carbon dioxide in the global atmosphere are reaching 400 parts per million (ppm) for the first time in human history: Scripps Institution of Oceanography http://keelingcurve.ucsd.edu/.

- Enables ETS to work as a true scarcity model and removes responsibility for carbon price stability from the political domain

- Ensures effective risk management in the event of policy failure within the ETS by means of regulatory measures not dependent on carbon pricing, including emissions performance standards for power installations and stronger regulation of non-traded emissions

- Embraces an ambitious, binding and economy wide approach to GHG emission reduction with an improved framework for non-ETS reductions

- Eliminates the use of international credits post 2020 for ETS and non-ETS sectors until the problem of oversupply is resolved and issues surrounding additionality and sustainability are addressed within the international system

- Introduces mandatory recycling of allowance auction revenue and provide new financing solutions for non-ETS reductions

- Brings energy efficiency centre stage by adopting ambitious and binding national targets

- Embraces an ambitious, sustainable and binding approach to building renewable energy and actively promotes community based generation capacity.

- Delivers a just energy transition for the people of Europe.

1 Lessons from the 2020 Framework

1.1 Which lessons from the 2020 framework and the present state of the EU energy system are most important when designing policies for 2030?

ClientEarth believes the following to be the key lessons to be derived from the 2020 framework and the present state of the EU energy market and are the most important to be considered in the design of the 2030 framework.

Lesson 1: The credibility and legitimacy of the EU's commitment to effective governance of the low carbon transition depends fundamentally on embracing a climate and energy framework grounded in the latest science

When it was adopted the legitimacy and credibility of the EU's 2020 framework depended fundamentally on the fact that when it was launched it represented a meaningful attempt to align the ambition of EU climate governance to the IPPC's scientific advice concerning the scale and speed of greenhouse gas emissions reduction required to avert dangerous climate change. Although the EU's long-term policy objective should remain the delivery of greenhouse gas emissions by 80-95% by 2050 compared to 1990 levels, advances in scientific understanding since 2008 concerning the pace of decarbonisation needed to avert dangerous climate change require the EU to significantly and explicitly intensify the scale of its emissions reduction ambition for 2030. Failure to do so would significantly erode the EU's credibility as a leader in climate governance and would ultimately, we believe, undermine its legitimacy to govern on behalf of the peoples of Europe.

Lesson 2: Embedding EU climate and energy governance in the rule of law has played powerful symbolic and practical roles in building the international consensus concerning the need for a binding global deal on GHG emission reduction and in driving domestic action. The rule of law could also be more proactively deployed to alleviate investment uncertainty and mitigate the risk of policy failure. Policies rooted in binding obligations should thus feature strongly in the 2030 framework.

The EU's decision to embed its 2020 package in legally binding obligations sent a powerful message to the world concerning one of the hallmarks of effective climate governance. Although EU leadership in this respect has not been enough to induce the negotiation of a binding international agreement on the reduction of global GHG emissions, it has nevertheless played an important role in maintaining the political peer pressure that has delivered the Durban Platform and specifically a commitment by the world's major carbon powers to negotiate towards a binding climate deal in 2015. ClientEarth strongly believes that a decision to adopt a powerful framework for 2030 will play a vital role in maintaining the momentum of global negotiations towards a binding emissions regime. It is thus critical that the 2030 package does not retreat from binding climate and energy governance. If the EU is to discharge its legal duty under the Treaty on the Functioning of the EU (Article 19) to promote international efforts to combat climate change, it must use the 2030 design process to strengthen the legal traction of EU climate and energy governance - and most critically in the context of greenhouse gas reduction where 58% of European emissions are scarcely regulated at all.

Closer to home, ClientEarth also strongly believes that one of the central messages emerging from the experience of actually implementing the EU's 2020 package is that the rule of law has played an important practical role in driving domestic action. This reality is clearly evidenced by the stark contrast that now exists between the serious lack of progress by Member States towards meeting the voluntary EU target for energy efficiency[2] and the comparative advances being made towards meeting their legally binding EU renewables targets.[3] Although the Energy Efficiency Directive enshrines a 2020 energy savings target for the EU as a whole, it does not impose binding national targets and thus is not enforceable. Despite the adoption of the Directive, it is estimated that Member States will not deliver the EU's energy efficiency target for 2020. In contrast, binding national targets are transforming the renewable energy sector, which has achieved a share of 13% renewable of the energy mix in 2011 with year-on-year growth.[4] The Commission has reported not only that Member States are on track to meet the 2020 renewables target[5] but that some Member States are even on track to surpass their target by 2020 as the industry has become so competitive.[6] The impact of the rule of law in driving national action is furthermore clearly evidenced by policy developments within the UK, which is currently the only Member State to have adopted a legally binding long-term decarbonisation target and statutory carbon budgets. Because it faces legally enforceable national obligations the UK is taking unilateral national measures designed to compensate for the weakness in the European carbon market[7] and is calling for substantially increased ambition in the EU's 2030 GHG emission reduction target.

ClientEarth also believes that the rule of law could usefully be deployed to address two systemic weaknesses that significantly erode the functioning of the EU's climate and energy regime; namely: (a) uncertainty and (b) the volatility of the European carbon market. The Energy Roadmap 2050 makes clear that uncertainty is a major barrier to investment but also that if investments are postponed they will cost more from 2011 to 2050 and create greater disruption in the longer term.[8] In addition, enormous over supply in allowances within the ETS has led to the collapse of the European carbon price and thus is failing to drive rapid and substantial investment in low carbon technologies or protect the EU from the risk of high carbon 'lock in'. ClientEarth strongly believes that a climate and energy governance regime more strongly

[2] In March 2011 the Commission reported that the EU would only achieve half of its voluntary 20% energy savings target by 2020 (Energy Efficiency Plan 2011, COM(2011) 109 final).

3 In March 2013 the Commission reported that most Member States are on track with their trajectory towards 2020 under the Renewables Directive, albeit the Commission also highlighted significant barriers to real delivery of these targets due to a range of administrative, infrastructural and financial barriers. (Renewable Energy Progress Report, COM(2013) 175 final).

[4] Eurostat Press Release April 2013, http://europa.eu/rapid/press-release_STAT-13-65_en.htm.

[5] Renewable energy progress report {SWD(2013) 102 final} REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS.

[6] Eurostat Press Release April 2013 http://europa.eu/rapid/press-release_STAT-13-65_en.htm.

[7] Notably through the planned introduction of an emissions performance standard as part of the Energy Bill currently being considered by UK Parliament

[8] Pp. 2

embedded in the rule of law would substantially alleviate the problem of uncertainty by creating a stable and clearly oriented long-term regulatory context. In addition, we believe that the risks of policy failure within the ETS can only be appropriately mitigated by a substantial strengthening of the regulatory framework governing the ETS itself but also the sources of the other 50% of the EU's GHG emissions, which in turn requires a substantial strengthening of the Effort Sharing Decision. ClientEarth's more specific proposals in this regard are addressed below.

Lesson 3: The ETS is in a state of serious malfunction. Although recession has depressed demand for allowances, the failure of the EU carbon market stem directly from an ETS architecture that is too inflexible and politicised to work as a true scarcity model

ClientEarth believes that if the ETS is to justifiably remain as the 'cornerstone' of the EU's climate and energy framework for 2030 it must be urgently reformed. Efforts in this regard must be designed to enable ETS to function as a genuine scarcity model and thus demonstrate unequivocally whether this mechanism can in fact deliver the outcomes required. We have already submitted detailed proposals for structural reform to the ETS in response to the Commission's State of the Carbon Market report in 2012. However, the subsequent difficulties in securing the ETS back-loading vote have convinced ClientEarth that reform must also include the separation of responsibility for the policy and regulatory functions of the ETS. The power to take corrective action, and thus ensure a strong and consistent carbon price, must be transferred to an independent, expert but accountable body acting within powers delineated in legislation, and striking a more appropriate balance with industry certainty. This entity must be empowered to take corrective action in response to a variety of exogenous factors such as economic recession, the impact of EU policies, and the implementation of national complementary measures such as CO_2 emissions performance standards.[9]

[9] The UK has been at the forefront of implementing complementary measures to emissions trading such as emissions performance standards for power installations. Going forward, it will become more important to establish adjustments or cancellation mechanisms that preserve Member States right to adopt more stringent protective measures, in accordance with art 192 TFEU. In the absence of this, the ETS establishes a 'trap' as well as a cap, risking negating the emissions reductions achieved by complementary policies by simply freeing up allowances for other sectors or installations in other Member States.

Lesson 4: It is necessary and inevitable that a substantially more ambitious and legally binding Effort Sharing Decision (or similar instrument) forms the cornerstone of the 2030 framework

The EU is excessively heavily reliant on a still unproven ETS to meet its GHG emission reduction targets. We know that non-ETS sectors represented almost 60% of GHG emissions in 2005 yet emphasis continues to be placed on the ETS to take Europe to its 2050 target. The 2011 impact assessment for the 2050 Road Map requires up to 48% reductions in emissions by 2030 in ETS sectors whereas non ETS sectors were only expected to contribute 24% - 36% (compared to 2005 GHG emissions). ClientEarth considers this split should be rebalanced as a possible route through to higher ambition for the GHG target.

The successful implementation of emission reductions within ETS sectors is based on prevailing carbon prices in the ETS assuming, as the impact assessment has, a carbon price of 16 €/tCO2eq in 2020 and 36 €/tCO2eq by 2030. Given the current market conditions, where EUA prices are around 4€/tCO2eq, and in light of the failed ETS backloading vote, it would seem prudent to set an ambitious target for non-ETS sectors if not because they offer the majority low cost mitigation potential opportunities, then because it is smart risk management - if ETS fails to deliver, we have a back-up plan that can still take us where we need to be in 2030. This is entirely possible given recent studies and progress reports.

Additionally, it is important to note that being 'on track' for the 2050 goal of a nearly fully decarbonised economy is not as simple as drawing linear trajectories. All sectors of the economy, including production and consumption chains, and consumer behaviour change, will require transformation in order to reach 80 to 95% reductions by 2050. The last stretch is likely to be more difficult, requiring less cost efficient measures and more systemic cultural change. For these reasons, policy interventions in key sectors falling outside the ETS, such as agriculture lighter industry and buildings, must be spurred by 2030 in order to be 'on track' for 2050.

ClientEarth believes that the lessons of the 2020 package and the present state of the carbon market make clear that a substantially more ambitious and legally binding Effort Sharing Decision (or similar instrument) must become one of the cornerstones of the 2030 framework. Without the sharing of effort with binding targets at national level, all we would have in the 2030 framework is political agreement on economy wide GHG targets and a still experimental ETS. Without the ESD (or alternative instrument) we would have no binding economy wide target. An instrument will be required to ensure a binding GHG target and an equitable split amongst Member States. ESD targets must be distributed at the national level otherwise Europe risks a lowest common denominator approach (e.g. a harmonised EU target that Poland accepts) which would severely undermine the emission reductions available in non ETS sectors. The GHG target must be legally binding on Member States and be located within an improved governance

framework capable of driving national institutional frameworks to drive the full range of cost effective policies and provide a strong investment signal to investors.

ClientEarth believes that the ESD is therefore an important piece of the governance puzzle, and a landing point for questions of burden sharing and financing issues. As the Green Paper suggests, these two issues will in fact be key to the ambition of the GHG target and to devising a political strategy to secure an ambitious 2030 package more broadly. The value of the Effort Sharing Decision, once it is working better, is threefold. Firstly, it is part of a comprehensive approach to climate policy by capping emissions in non-ETS sectors, with potential to spur national and EU policies in a range of crucial sectors. Without it, EU climate policy would be based on the ETS plus a small handful of sectoral policies, resulting in a potentially unstable, fragmented and patchwork approach. This would increase the risk of 'lock in' of higher greenhouse gas emitting technologies and practices in key sectors such as lighter industry, agriculture and transport. Secondly, by giving effect to binding economy wide targets, it provides a long term trajectory for the ambition of EU sectoral policies, which in turn contributes to clear signals for investors in the green economy. Thirdly, it compels additional national action in flexible ways and can drive additional Member State action beyond the implementation of EU climate policies (which often adopt a harmonized, lowest benchmark denominator standards). There are a variety of subsidarity reasons why the role of national policies will remain critical in the achievement of decarbonisation objectives, particularly in certain sectors such as agriculture. In Member States such as Spain and Belgium that do have a projected ESD compliance gap for 2020, there is evidence of the Effort Sharing Decision driving policy discussions and implementation of such 'additional' policies, such as transport electrification.

There are a variety of subsidarity reasons why the role of national policies will remain critical in the achievement of decarbonisation objectives, particularly in certain sectors such as agriculture.

Lesson 5: The Effort Sharing Decision (or an alternative non-ETS climate framework) must drive domestic action, and international credits should not be allowed for ESD compliance after 2020. Pre-2020 there is a need for quality restrictions to ensure that, at bare minimum, only those credits eligible under the ETS are eligible under the Effort Sharing Decision

At present those few Member States at risk of ESD non-compliance are provided with several easy escape routes or paths of least resistance including recourse to CERs and ERUs. The overall amount of the EU reduction effort that can be met by international credits is unacceptable - calculations show that up to 2/3 of the overall reduction required by 2020 can be met by international credits.10 Faced with the alternative of buying cheap international credits, Member

10 If the sum of reductions over the whole period is taken as the total reduction effort (roughly 1200 MtCO2eq.), CDM/JI credits can make up 2/3 of this reduction (**roughly 700 MtCO2eq).**

States face a big disincentive taking on domestic policies. Additionally, the EU risks locking in high carbon infrastructure in key sectors (primarily buildings, transport and agriculture) as a result of this failure of the Effort Sharing Decision to ensure domestic action.

Furthermore, the current UNFCCC system that generates CERs and ERUs does not provide an acceptable standard to ensure that issued credits come from additional and sustainable projects. Until the standard is improved, ClientEarth maintains that international credits do not have a place in the EU climate change policy.

Lesson 6: The absence of a binding EU energy efficiency target represents an untenable weakness in the EU's climate and energy framework. Whether considered in terms of its contribution to climate mitigation, economic recovery, stronger competitiveness, energy security or promoting human health, the benefits of energy efficiency are so substantial, numerous and obvious that Europe cannot afford to continue to marginalise this issue within its climate and energy governance regime. The EU cannot afford not adopt an ambitious and binding energy savings target for 2030

Evidence of the climate, economic, energy security and health benefits of energy efficiency is so overwhelming that it is difficult to believe that the EU's climate and energy regime for 2020 does not place a pivotal and legally binding emphasis on driving energy savings. Influential reports from numerous sources,[11] most recently the International Energy Agency ("IEA")[12] and leading global consultancies[13] have continuously evidenced the economic, climate and energy security and health benefits of energy efficiency. The IEA's most recent report on climate & energy (May 2013) comes to the powerful conclusion that energy efficiency measures are the most important tools for meeting the global goal to avert dangerous climate change because they deliver 49% of the overall combined effect of its four key advocated policies in reducing greenhouse-gas

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http://www.europarl.europa.eu/committees/en/studiesdownload.html?languageDocument=EN&file=22071 at page 10, Figure5.

[11] European Council for an Energy Efficiency Economy (ECEEE)- European competitiveness and energy efficiency: Focusing on the real issue, A discussion paper 2013; International Energy Agency World Energy Outlook Special Report, 'Redrawing the Energy-Climate Map' 2013; McKinsey Global Institute, Investing in growth: Europe's next challenge, December 2012; Fraunhofer ISI (2012): *Concrete Paths of the European Union to the 2°C Scenario*; Ecofys (2013) *Saving Energy: Bringing down Europe's energy prices for 2020 and beyond*; Roadmap 2050, 'A practical guide to a prosperous low carbon Europe, Policy Report 2010.

[12] International Energy Agency World Energy Outlook Special Report, 'Redrawing the Energy-Climate Map' 2013. The report identifies that its four energy policies of: energy efficiency, limiting the construction and use of the least-efficient coal-fired plants, minimising methane emissions from upstream oil and gas production, accelerating the phase-out of subsidies to fossil-fuel consumption can have the combined effect of reducing GHG emissions by 1 Gt.

[13] McKinsey Global Institute, Investing in growth: Europe's next challenge (http://www.mckinsey.com/insights/europe/investing_in_growth]; Fraunhofer ISI (2012): *Concrete Paths of the European Union to the 2°C Scenario* [*http://plus.url.google.com/url?sa=z&n=1372000356307&url=http%3A%2F%2Fwww.isi.fraunhofer.de%2Fisimedia%2Fdocs%2Fe%2Fde%2Fpublikationen%2FBegleitbericht_Contribution-to-climate-protection_final.pdf&usg=lVnZiYcGWll-QJi24yxfrFCNiG4*]

emissions by 2020.[14] Even more importantly the report emphasises that these reductions can be made using existing technologies. It should also be noted that a recent study from McKinsey goes so far as to propose that energy efficiency "could be the horse to put before the wagon on the road to recovery of economies and employment".[15]

Although the adoption of the Energy Efficiency Directive was a step towards more effective regulation of national efforts to deliver energy saving, the lessons of the 2020 framework make clear that this measure will not unlock the substantial energy saving potential that exists at national level, nor will it deliver the EU's political target for energy savings by 2020. It is furthermore evident from the implementation of the 2020 package that the barriers to realising energy savings potentials are not tackled effectively by the EU's greenhouse gas or renewable energy policies alone, and moreover that the EU's three 2020 targets have not always complemented each other leading to sub-optimal outcomes.

As already stated, the role of legally binding targets in driving action and building a sufficiently stable regulatory environment to attract investment has emerged as one of the key lessons from the process of implementing the 2020 package. ClientEarth thus regards binding national energy efficiency targets as being of the utmost importance and crucial to the development of effective EU economic, energy and climate policies. We strongly support an urgent revision of the Energy Efficiency Directive to enshrine binding national energy savings targets for 2020 and view their inclusion in the 2030 framework as essential together with appropriate review and adjustment mechanisms to ensure an optimal interaction between a tighter ETS cap and successful implementation of binding renewables and energy efficiency measures.

Lesson 7: The 2030 framework must embrace a sustainable approach to renewable energy generation

Most of EU renewable energy comes from biomass such as wood and wood pellets for electricity or heat generation, or agricultural crops for transport biofuels. According to the Commission's Renewable energy progress report,[16] already today biomass constitutes more than 60% of EU renewable energy. Even when biofuels are not considered, biomass still represents 50% of renewable energy in electricity and heating. The dominant role of biomass is expected to continue at least to 2020 under current policy. There are however, serious and well evidenced concerns about the direct and indirect environmental impacts of reliance on biomass for energy. ClientEarth strongly supports the extension of the Renewable Energy Directive (RED) to 2030; however, it believes that policy design for 2030 must clearly acknowledge these

[14] International Energy Agency World Energy Outlook Special Report, 'Redrawing the Energy-Climate Map' 2013
[15] McKinsey, 'European competitiveness and energy efficiency: Focusing on the real issue, A discussion paper'
[16] Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *Renewable energy progress report*, COM(2013) 175 final, Brussels, 27.03.2013.

concerns and that the Commission should bring forward legislative proposals for a new RED that ensures a sustainable approach to renewable energy for the post-2020 period.

Lesson 8: Inconsistencies between EU state aid rule and EU climate policy objectives have undermined investment in the desired outcomes of the 2020 framework

Achieving the EU's climate and energy objectives of energy depends crucially on stopping investment in new coal plants not fitted with CCS and redirecting the flow of investment towards renewable energy sources and energy efficiency. EU state aid rules can play a critical role in achieving this outcome by permitting state aid for projects that are consistent with climate policy and not allowing aid for projects in power generation from fossil fuels, especially coal. As currently designed EU state aid rules make it possible for Member States to give aid for projects which are clearly inconsistent with the EU's long-term climate objectives and in fact can have the effect of lowering the protection afforded to the environment and weakening competition in the context of energy projects. It is therefore imperative that EU state aid rules are changed to ensure a strong alignment with the objectives of the 2030 framework. The design of the 2030 framework must include the amendment of Commission's ETS state aid guidelines to ensure a clear alignment between EU state aid rules and EU climate and competition policy in the context of energy projects.[17]

Lesson 9: EU climate and energy governance fails to provide a meaningful response to the deepening problem of energy poverty and thus threatens to intensify already potent social barriers to the energy transformation

The European Economic and Social Committee now estimates that energy poverty is a problem that affects up to 125 million European citizens spanning almost every Member State.18 Despite consensus within the political and policy communities that energy prices will continue to rise for at least the next decade irrespective of the substantial additional cost implications of efforts to decarbonise the European energy system,19 EU energy law simply requires Member States to take 'appropriate measures' to address this problem. However, EU energy law does not define the problem, set a clear threshold for a minimum acceptable national response or ensure adequate oversight of national compliance with this vague obligation. Not surprisingly, Member

[17] *Communication from the Commission – Guidelines on Certain State Aid Measures in the context of the Greenhouse Gas Emission Allowance Trading Scheme post-2012*, (SWD (2012) 130 final and 131 final).
[18] European Economic and Social Committee President, November 2012 http://www.eesc.europa.eu/?i=portal.en.press-releases.25313; see also Dr Stefan Bouzarovski-Buzar, *'Energy Poverty in the EU: A Review of the Evidence'* (2011) University of Birmingham http://ec.europa.eu/regional_policy/conferences/energy2011nov/doc/papers/bouzarovski_eu_energy_poverty_background%20paper.pdf .

State action to alleviate this serious problem is considered to be inadequate.[20] ClientEarth takes the view that this weakness in the climate and energy frameworks will result in a low carbon transition that causes significant social injustice, which itself is arguably in breach of the EU Charter on Fundamental Rights, but will almost certainly entrench the substantial social barriers that already exist to this outcome. We therefore call for a 2030 package that addresses this governance gap and ensures a just transformation of Europe's energy system.

Lesson 10: Member State non-compliance with the EU climate and energy acquis poses a serious threat to achieving the objectives of the EU's 2020 framework. Despite this, the arrangements for driving compliance are weak

ClientEarth's detailed knowledge of Poland's engagement with EU climate and energy law makes clear that its Government has failed to comply in law and in practice with significant elements of the 2020 framework. Evidence of the scale of this non-compliance is detailed in Annex 1 to this response. The highly unsatisfactory state of compliance in Poland leads us to believe that similar non-compliance problems are likely to exist across the EU. However, ClientEarth also believes that the problem of inadequate oversight and enforcement is particularly serious in the context of ensuring compliance with the particularly complex legal framework governing the Internal Energy Market. Creating the single internal energy market is widely considered to be critical to capturing the most cost-effective route to energy decarbonisation. The 3rd Internal Energy Market package of Directives was introduced in 2009 and came into force in 2011. However, despite the critical importance of this legal framework to Europe's energy and economic objectives, many Member States have still failed to fully transpose the Directives into national law. As of the end of 2012, seven Member States had still not communicated any transposition of the Directives at all, and overall it remains to be seen the extent to which transposition has been fully and correctly completed by Member States.[21] Although the Commission has pursued many of these non-compliance cases in court, we strongly believe that the lack of transposition by Member States more than four years after its enactment speaks loudly to the serious weakness that exist in the arrangements for oversight and enforcement of this critical legal framework.

The 3rd Energy Package attempted to address this problem through creating a new EU level body (ACER) whose role includes acting as an extended guardian (to the Commission) of the internal energy market. However, because its powers are limited to issuing opinions and recommendations which national regulatory authorities may ignore, its role within the governance structure remains largely reactive. The 3rd Energy Package also attempted to bolster governance through requiring Member States to create powerful and highly independent

[20] European Economic and Social Committee, *Energy Poverty in the context of liberalisation and the economic crisis*, Opinion TEN/420, 14 July 2010, pp6.
[21] Commission Staff Working Document Energy Markets in the European Union in 2011 http://ec.europa.eu/energy/gas_electricity/doc/20121217_energy_market_2011_lr_en.pdf

National Energy Regulators (NERs). However, while the NERs should be able to play a vital role in driving national compliance with internal market framework, many Member States have yet to fully safeguard their NERs independence.[22] This problem is further compounded by the fact that the regulatory framework gives ACER only limited powers to step in and take on a more active role if they have grounds to believe that there is a clear breach or potential breach of the internal energy market rules (e.g. via whistle blowing provisions). The Commission has stated that it is seeking to galvanize the implementation of the internal market rules through more proactive use of its own enforcement powers. In November 2012 it issued a Communication setting out an Action Plan in this regard. Although welcome, ClientEarth believes that the very long list of actions identified by the Commission to ensure successful implementation of the IEM is testament to both unsatisfactory compliance at national level but also weak arrangements for oversight and enforcement.

Compliance with the rule of EU climate and energy law is critical to keeping Europe on the pathway towards achieving its long-term decarbonisation, energy security and competitiveness objectives. It is also critical to ensuring political solidarity amongst Member States. ClientEarth strongly urges the Commission to make compliance a key priority within the 2030 framework. To this end we urge the Commission to make proactive and timely use of its own enforcement powers. We furthermore strongly urge that the 2030 framework includes a strengthening of ACER's oversight powers so that it can contribute more proactively to EU level oversight of compliance with the highly technical regulatory framework governing the internal energy market. However, we also call on the Commission to substantially empower civil society actors to collaborate in the process of ensuring compliance and to this end to support the building of technical and advocacy capacity to deliver this role effectively.

2 Targets

2.1 Which targets for 2030 would be the most effective in driving the objectives of climate and energy policy? At what level should they apply and to what extent should they be legally binding?

ClientEarth takes the view that a credible and cost-effective EU climate and energy regime for 2030 must be founded on scientifically informed headline targets for GHG emissions, energy efficiency and renewable energy. It is furthermore essential that all three targets are embedded in the rule of law and binding at EU and national level in order to drive action.

[22] Commission Staff Working Document Energy Markets in the European Union in 2011 http://ec.europa.eu/energy/gas_electricity/doc/20121217_energy_market_2011_lr_en.pdf

Our understanding of the latest scientific and technical advice suggests that the following EU targets should be adopted for 2030:

1. Greenhouse gas emission reductions target of 55-60% from 1990 levels;
2. Energy savings of 50% from 2005 levels; and
3. A 45% share for renewables.

More specifically, ClientEarth submits the following responses to the Commission's question concerning the setting of targets:

2.1.1 A need for a more ambitious 2030 GHG emission reduction target

It is essential that the EU's climate and energy governance framework is designed to deliver at least an 80-95% reduction in greenhouse gas emissions by 2050 if the world is to have any prospect of averting dangerous climate change and if Europe is to become energy secure, emerge from economic crisis and enjoy more robust global competitiveness.

However, effective governance of the pathway towards that long-term objective requires that interim targets are put in place to ensure appropriate monitoring of progress. ClientEarth thus believes that a GHG target for 2030 is essential to ensure transparent and accountable governance of the EU's decarbonisation pathway. However, we also believe that good governance requires that any interim targets are based on the latest science. When the EU's 2020 climate and energy package was launched in 2008 it was already clear that the EU's greenhouse gas emission reduction target for 2020 was an inadequate response to the IPPC's finding that developed countries needed to reduce greenhouse gas emissions by 25-40% by 2020[23] in order to minimise the risk of 'dangerous' climate change. The latest scientific evidence suggests that atmospheric concentrations of CO_2 have now reached record levels.[24] It is widely understood that based on the latest science, the IPPC will make an unequivocal case later this year for even faster, steeper emissions reductions if the world is to stand any chance of keeping global warming below 2°C.[25] The Commission's 2050 Roadmap analyses indicate that the EU does not intend to achieve 40% emissions reduction until 2030.[26]

It is thus clear that the current pace of EU decarbonisation is insufficient to ensure that the EU makes an equitable and proportionate contribution to global climate mitigation. ClientEarth therefore takes the view that a scientifically credible and equitable commitment to climate governance requires the EU to substantially increase its level of ambition concerning

[23] Intergovernmental Panel on Climate Change (2007), p 776 .
[24] Scripps Institution of Oceanography http://keelingcurve.ucsd.edu/.
[25] FoE, 2030 Climate and Energy Policy: The Time is Now, p.3
[26] *Roadmap for moving to a competitive low carbon economy in 2050*; the *Energy Roadmap 2050* and the *Transport White Paper*.) COM

greenhouse gas emissions reduction for 2030 and specifically, to adopt a target requiring at least a 55-60% cut in EU greenhouse gas emissions from 1990 levels by this deadline.

Lastly, ClientEarth believes that the setting of a 55-60% EU greenhouse gas target for 2030 should not be pre-conditional on the successful negotiation of an international agreement in 2015. As one of the world's major emitters of greenhouse gases the EU owes a clear moral duty to make a rapid and radical low carbon transition by 2050. Moreover there is consensus that rapid and radical mid-century economic decarbonisation is co-terminus with resolving the EU's energy security and competitiveness challenges. Indeed, in the context of an economic and financial crisis, decarbonisation of Europe's energy system is an economic policy and one upon which rests the long-term future of our society and economy.

2.1.2 Raising ambition in non-ETS sectors is an opportunity to get well beyond the 40% milestone for EU GHG reduction for 2030, and to achieve this domestically and at lower cost

ClientEarth acknowledges that delivering a GHG emission reduction target for 2030 that places the EU on track for 2050, cannot be achieved from ETS sectors alone. The Effort Sharing Decision is the piece of law governing all GHGs, and scientific assessments conclude that measures targeted to reduce emissions of black carbon and methane, for example, could greatly reduce global mean warming rates over the next few decades.[27] Additionally, the Effort Sharing Decision covers sectors like agriculture, transport and buildings, all of which are major contributors to GHG emissions in Europe. We believe that increased ambition for achieving GHG reductions within the non-traded sectors poses a vital opportunity for delivering a scientifically credible 2030 GHG target – in effect, reductions going well beyond the 40% projected in the Roadmaps analyses. This approach also creates a means of achieving this objective through domestic effort and at lower cost.

The fundamental weakness in the present Effort Sharing Decision is that it enshrines low ambition. Despite capping emissions from nearly 60% of the EU's GHG emissions, the Effort Sharing cap was set to drive 10% reductions only at EU level. By contrast, the ETS, covering approximately 40% of EU emissions, does two thirds of the heavy lifting for the 2020 GHG target.

The economic crisis has further undermined the ambition and effectiveness of the Effort Sharing Decision. In particular, the demand for surplus Effort Sharing allowances (AEAs) is expected to be low in light of EEA projections that the EU will over-reach its Effort Sharing 2020 target by 8%

[27] Integrated Assessment of Black Carbon and Tropospheric Ozone. UNEP and WMO 2011

(with the implementation of planned measures).28 According to EEA projection, that alone, assuming implementation of current and planned measures, will bring non-ETS emission reductions to 18% compared to 2005 levels by 2020. Analysis of recent studies of mitigation potential suggests that raising the ambition in Effort Sharing sectors is an opportunity to aim far beyond the 40% milestone for the 2030 GHG target, and towards a target that is supported by science.

Recent studies demonstrate that non-ETS sectors are capable of making significant additional reductions (beyond the 18% reductions already projected by 2020[29]) by 2020 at high levels of cost effectiveness, paving the way for ambitious reductions by 2030.[30] The non-ETS part of the economy contains many untapped abatement opportunities. A substantial portion of the additional mitigation potential comes at a cost less than 0 EUR/tonne. A 2011 SERPEC report revealed cost savings from recycling of paper (leading to a reduction in waste to land fill) and introducing insulation and efficient heating/cooling in buildings equating to €37 Billion 2020.[31]

The following table illustrates the cost bands and amount (in mega tonnes) of available mitigation potential from selected technical mitigation options by 2020:

MtCO2e	EU 27	Agriculture	Building	Transport	Industry
Cost Band A (<0 €)	156	19	84	11	43
Cost Band B (0-25 €)	56	31	4	7	14
Cost Band C (25-50 €)	56	31	2	23	0
Cost Band D (>50 €)	129	41	29	58	0
EU wide per sector	397	122	118	100	57

Table 2: Abatement potential in the EU per sector and per cost band from June 2012 ECOfys Report (Next Phase of the European Climate Change Programme: Analysis of Member States actions to implement the Effort Sharing Decision and options for further community-wide measures)

One study published last year showed 212 MtCO2eq of additional mitigation potential exists in non-ETS sectors, at marginal abatement costs of less than 25€/tCO2eq. These come from measures such as retrofitting of residential and industrial buidings, CHP in chemicals and refineries, and centralised anaerobic digestions on farms. If all these measures were to be implemented, non-ETS sector emissions would be reduced by an additional 9% compared to

28Greenhouse gas emission trends and projections in Europe 2012. Tracking progress towards Kyoto and 2020 targets. EEA Report No 6/2012

[29] Greenhouse gas emission trends and projections in Europe 2012. Tracking progress towards Kyoto and 2020 targets. EEA Report No 6/2012

[30] Analysis of Member States actions to implement the Effort Sharing Decision and options for further communitywide measures. ECOfys, June 2012 and Behavioral Climate Change Mitigation Options and Their Appropriate Inclusion in Quantitative Longer Term Policy Scenarios Main Report. CE Delft, April 2012.

[31] Sectoral Emission Reduction Potentials and Economic Costs for Climate Change (SERPEC-CC). Summary report

2005 levels. Another study published in 2012 focused on the impact of measures targeting the demand side of the economy, a large driver of emissions in non-ETS sectors. This study concluded that there is an additional 600 MtCO2eq of untapped feasible mitigation potential (22% emission reductions compared to 2005) with measures that aim to curb consumption patterns (i.e. behaviour change). If we can assume no double counting between the two studies and both figures are added to what the EU is expected to achieve (18% reductions), we calculate a total of 45% in emission reductions in non-ETS sectors compared to 2005.

At the national level, innovative policies such as those canvassed in the behaviour change study are already coming into play. For example, Bremen, Germany introduced a car sharing system a few years ago, where people can rent different types of vehicles for short or longer periods of time. Allowing customers to access cars has led to the downsizing of owned cars and savings of €20-40 million in 2010 for parking infrastructure since 1,500 fewer parking spaces were needed throughout the city.[32] The GHG reduction potential from such measures and other policy scenarios must be included in the Commission's impact assessment this year as this represents cost effective abatement potential

The 2011 impact assessment called for a 24% - 36% reduction by 2030 for non-ETS sectors yet our calculations from recent studies show that this can easily be increased to a 45% target. The 45% figure however does not feature measures above 25€/tCO2eq or potential reductions available from structural changes in the economy (e.g. increasing material efficiency or modal shift in transport) that can be made possible with the right incentives and financing schemes in place. Also, a limited set (mobility, food, housing) of measures targeting consumption patterns are evaluated in the one study. These mitigation potential results are therefore only a window into the opportunities available, and there is likely a larger pool of additional emission reductions in non-ETS sectors. Also, there were other policy scenarios that were not included in arriving at the 'milestones' in the low carbon roadmaps, in particular the current debate about including methane ceilings in the National Emissions Ceiling review (a DG Environment dossier). All of the above supports a more ambitious non-ETS target beyond 45% by 2030.

Given the above analysis, untapped emissions reduction activities non-ETS sectors that cost less than 25 EUR/tCO2e could support an EU Effort Sharing target of 45% to 50% on 2005 levels. An increase to a 50% target would conservatively account for the untapped additional potential identified above. With a 50% non-ETS target for 2030 and assuming that non-ETS sectors continue to represent approximately 60% of the EU's GHG emissions, non-ETS reductions alone can take the EU to 30% reductions by 2030. Even if the ETS reductions called for by the 2011 impact assessment remain the same (using the upper range of 48%), increasing the 2030 target of non-ETS sectors to 50% can take Europe to almost 50% in emission reductions by 2030. The fact that reductions can be delivered largely by seizing the low to medium cost measures (ranging from less than 0 €/tCO2eq to 25 €/tCO2eq) underlines the

[32] ICLEI - Local Governments for Sustainability, ICLEI World Secretariat, 2011.

critical role that an improved ESD has to play in the route to higher 2030 climate ambition at lower cost.

The successful implementation of emission reductions within ETS sectors is premised on prevailing carbon prices in the ETS assuming, as the impact assessment has, a carbon price of 16 €/tCO2eq in 2020 and 36 €/tCO2eq by 2030. Given the current market conditions, where EUA prices are around 4€/tCO2eq, and the ongoing challenges faced by the backloading vote, it would seem prudent to set an ambitious target for non-ETS sectors if not because they offer many low cost mitigation potential opportunities, then because it is smart risk management - if ETS fails to deliver, we have a back-up plan that can still take us where we need to be in 2030. In order to secure political buy in for significantly more ambitious reductions in non-ETS sectors, ClientEarth considers that it will be necessary for the Commission to propose new financing measures within the future Effort Sharing Decision, as well as an improved governance framework that more effectively guides national decision making and sparks the necessary institutional arrangements at national level to minimise policy risk for investors.

Non-ETS mitigation activities can also come with the positive health impacts such as reduction in adverse health impacts through a less meat intensive diet and improved air quality from reduced vehicle activities. European Commission[33] and World Health Organisation Statistics[34] show that obesity is responsible for 2 to 8 per cent of health care costs and 10 to 13 per cent of deaths in several Member States in Europe and that exposure to particulate matter decreases the life expectancy of every person by an average of almost 1 year due to increased risk of cardiovascular and respiratory diseases, and lung cancer.

ESD sectors also carry huge green job opportunities. For example, analysis shows that better implementation of the Energy Performance of Buildings Directive could create up to 100,000 jobs.[35] Other studies suggest that renovating the existing building stock in combination with energy efficiency improvements, in the 10 Member States that joined the EU in 2004, might create up to 185,000 new jobs directly.36 And, a recent study by Cambridge Econometrics and Ricardo-AEA showed that increased spending on the technology within vehicles leads to job creation. This derives from increased jobs in the manufacturing of fuel-efficient automotive components and from a general boost to the wider economy as a result of decreased spending on imported oil. The study showed that it can create up to 443,000 additional jobs by 2030.[37]

[33] European Commission, Directorate General for Research Food Quality and Safety paper: *The fight against obesity* (2005)'

[34] WHO facts and figures, available at http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health/air-quality/facts-and-figures

35 See generally http://www.euroace.org/EuroACE%20documents/060522%20Financing%20Building%20Energy%20Efficiency%20in%20the%20Enlarged%20European%20Union%20%5Bfinal%20report%5D.pdf.

36see http://www.ecofys.nl/com/publications/documents/EURIMA_Nov05.pdf at page 10

[37] ***An Economic Assessment of Low Carbon Vehicles*. March 2013.**

2.1.3 An EU GHG reduction target for 2030 will need to be given effect by national binding GHG targets based on an equitable split. Without legally binding national splits for the 2030 GHG target, there would be no legally binding economy wide targets

The Effort Sharing Decision[38] (ESD) is the piece of law that enshrines binding GHG targets at national level and gives effect to the EU economy wide GHG targets, together with the ETS. It is necessary and inevitable that it (or a similar instrument,) is substantially developed so that it can function effectively as one of the key structural instruments driving the GHG target.

The value of the Effort Sharing Decision, once it is working better, is threefold.

It is part of a comprehensive approach to climate policy by capping emissions in non-ETS sectors, spurring policies in a range of crucial sectors. Without it, EU climate policy would be based on the ETS plus a small handful of sectoral policies, leading to a more fragmented and patchwork approach. This would increase the risk of 'lock in' of higher greenhouse gas emitting technologies and practices in key sectors such as lighter industry, agriculture and transport.

By giving effect to binding economy wide targets, it provides a long term trajectory for the ambition of EU sectoral policies, which in turn provide investment signals.

It compels additional national action in flexible ways, above what can be achieved and (importantly) it could drive additional Member State action beyond the implementation of EU climate policies (which often adopt a harmonized or lowest benchmark approach). In Member States such as Spain and Belgium that do have a projected ESD compliance gap for 2020, there is evidence of the Effort Sharing Decision driving policy discussions and implementation of such 'additional' policies, such as transport electrification.

Critically, a reformed Effort Sharing instrument can provide political solutions to a more ambition GHG target. In the current approach, burden sharing model is based on ability to pay, measured as GDP per capita. While this may be a fair approach, studies demonstrate how this approach is not cost optimised. Moving to 'a bottom up approach' to burden sharing, such as based on location of most cost effective mitigation potential, or targets proportional to projected emissions, has potential to lower the cost of the target at EU level by up to 21%.[39] Altering the burden sharing model would however present new winners and new losers compared to the 2008 split.

38Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0136:0148:EN:PDF

[39] Achieving more Climate Ambition in the EU: Distribution Options. June 2011. http://www.ieep.eu/assets/817/Background_report_distribution_options.pdf (**Note:** Table 3 on page 24 lays out the costs per scenario. Cost savings for implementing the two alternative scenarios instead of the GDP/capita scenario to achieve a 30% reduction in 2020 are: About 19% cheaper to implement MAC scenario (scenario 2) About 21% cheaper to implement the scenario based on level of emissions in 2020 (in cost savings that comes out to 800 Million Euros and 900 Million Euros, respectively).

Therefore, if a bottom up approach is proposed, it will be necessary for the Commission to do one of two things. It could either propose target architecture driving a more cooperative model, such as an intra-EU system similar to 'joint implementation.' Or it can propose new financing measures skewed proportionally so as to compensate Member States who may receive higher targets proportional to their capacity to pay (see financing section, further)

2.1.4 The need for explicit energy efficiency and renewables targets for 2030

ClientEarth would strongly oppose the rationalisation of EU targets for 2030 to a single EU greenhouse gas emission reduction target. Such an approach would represent a significant weakening in the clarity and traction of the EU's climate and energy regime.

There is universal recognition that radical decarbonisation of the energy system will be critical in addressing the EU's climate objectives and is co-terminus with energy security and competitiveness. The Commission's Energy Roadmap 2050 makes clear that two key changes are fundamental to inducing the profound energy system transformation required to achieve these objectives. First and foremost, the Roadmap emphasises that very significant energy savings are required in all decarbonisation scenarios[40] and that governance of the energy decarbonisation process should reflect a 'prime focus' on energy efficiency.[41] Secondly, the Roadmap identifies ensuring a higher share of renewable energy beyond 2020 as the other major pre-requisite for building a more sustainable and secure energy system.[42] It concludes that the 'challenge for Europe is to enable market actors to drive down the cost of renewable energy through improved research, industrialisation of the supply chain and more efficient policies and support schemes.'[43]

ClientEarth recognises the problems experienced in the interaction between the existing GHG, energy efficiency and renewables targets within the 2020 package. However, given the pivotal importance of inducing dramatic energy savings and substantial increases the share of renewable in the energy system by 2030, and that both objectives are universally agreed to be 'no-regrets' policies for Europe,[44] we believe that an effective 2030 regime must be founded on explicit targets for energy efficiency and renewable energy. As already stated, we believe that existing problems of poor interaction between the existing targets can be resolved by ensuring that appropriate review and adjustment measures are built into the 2030 framework to ensure an optimal relationship between the operation of the ETS, energy efficiency and renewables policies.

[40] P. 7
[41] P.9
[42] P.10
[43] P. 10
[44] P. 3

2.1.5 The need for an ambitious and legally binding energy efficiency target

There is now ample evidence that the market has proved insufficient to drive energy savings despite its known economic, environmental, health and competitiveness benefits and therefore policy is required to be set at the EU and national level in order for energy efficiency to achieve its potential. Thus, to be a credible and effective climate, energy and economic policy, it is imperative that the 2030 framework includes an ambitious target for energy savings that is binding at EU and national levels.

ClientEarth take the view that the study produced by Fraunhofer ISI45 for the German Government in 2012 should inform the setting of a scientifically credible and cost-effective EU energy savings target for 2030. Fraunhofer ISI estimated that by 2030 EU energy consumption could cost-effectively be reduced by 50% below 2005 levels.[46] The impact of such large energy savings on emissions reductions would be dramatic. Fraunhofer ISI furthermore estimates that cost-effective energy saving investments could reduce emissions in the EU's transport, industry, tertiary and household sectors by 52% by 2030. ClientEarth believes that energy savings on this scale are required across the EU in order to enable optimal use of energy efficiency as a credible tool for mitigating dangerous climate change, driving economic recovery and alleviating the health impacts of energy poverty. ClientEarth therefore urges the Commission to embrace an EU energy efficiency target of 50% from 2005 levels by 2030.

The Energy Efficiency Directive should be amended to enshrine this target in law. However, ClientEarth also strongly believes that responsibility for achieving this target should be legally disaggregated between Member States to ensure that it is also binding and enforceable at national level. Further work is under way to investigate how this should be achieved. While the EU target should be established through considering the available cost-efficient potentials in the main-energy using sectors, the effort to reach the target should be shared, considering the national potentials, amongst Member States. At national level the contribution from different sectors should be guided by cost-effective potentials.

2.1.6 A Renewables Target for 2030

As stated above, ClientEarth considers that the EU RES target has been a highly successful measure, and must be extended and continue to be legally binding on Member States within the 2030 framework. ClientEarth believes that an overall EU target of 45% renewable is credible and and sufficiently robust to place the EU on the pathway to achieving its long-term target of achieving a 95% share of renewables by 2050. We furthermore support this target on the grounds that RES and energy efficiency are likely to be the only viable tools capable of achieving the EU's 2050 objective given the immaturity of CCS and uncertainty concerning the

[45] Fraunhofer ISI (2012), table page 206: Concrete Paths of the European Union to the 2°c Scenario.
[46] Fraunhofer ISI (2012), table page 206: Concrete Paths of the European Union to the 2°c Scenario.

role of nuclear. Against this policy and technological background the RES and energy efficiency targets must be as high as possible.

2.2 Have there been inconsistencies in the current 2020 targets and if so how can the coherence of potential 2030 targets be better ensured?

There have been several inconsistencies in the current 2020 targets which must be rectified in order to ensure the coherence of the 2030 targets. Firstly, there was an underestimation of energy efficiency and savings and an overestimation of GDP. Modelling high energy efficiency and renewable energy deployment was not carried out and as a result the projections used created inconsistencies.

Furthermore, the GHG emissions target was set too low and coupled with unforeseen events this led to a malfunctioning climate and energy framework. Already in 2011 the EU's GHG emissions had dropped by 18.4% since 199047 meaning that by 2020 it will greatly surpass its 2020 target. A truly ambitious target needs to be set for 2030 because even with a business as usual approach by 2030 we will achieve much higher than a 40% reduction. For 2030 a better modelling technique should be used in order to better capture the most of these three drivers of combating climate change, inefficiency and lack of competitiveness.

Finally, a robust 2030 target, set early enough will also help achievement and perhaps even over-achievement of the current 2020 targets.

2.3 Are targets for sub-sectors such as transport, agriculture, industry appropriate and if so, which ones? For example, is a renewable target necessary for transport, given the targets for CO_2 reductions from passenger cars and light commercial vehicles?

Please see responses on the role of the Effort Sharing Decision in providing a framework to drive binding emissions reductions in non-ETS sectors including transport and agriculture (above under Targets and in further detail in section 3, Instruments).

With respect to a renewable target for transport, ClientEarth does not support such a target. Please see discussion of sustainability and biomass in section 3, Instruments.

[47] European Environment Agency: Annual European Union greenhouse gas inventory 1990-…2011 and inventory report 2013

2.4 How can targets reflect better the economic viability and the changing degree of maturity of technologies in the 2030 framework?

[Not addressed.]

2.5 How should progress be assessed for other aspects of EU energy policy, such as security of supply, which may not be captured by the headline targets?

The goals of EU energy policy can be supported as follows:

Robust energy efficiency policy supports energy security

ClientEarth strongly believes that the policies that would most efficiently ensure European security of supply are the promotion of energy savings and renewable energy. The greatest source of energy is that which is not used. For example if the 20% energy savings target is achieved in 2020 this correlates to an increase of 20% in security of supply. Therefore it is of utmost importance to Europe's energy independence to robustly pursue the joint policies of energy savings, in order to reduce our energy use, and renewable energy in order to use indigenous sources of energy which at the same time help to achieve the EU's climate targets. Continued EU dependency on expensive and volatile fossil fuel imports lead to an enormous trade deficit, reliance on foreign countries to supply this most fundamental resource and 'lock-in' to a carbon intensive future. Therefore an increase in energy efficiency measures and the deployment of renewable energy, coupled with diversification of energy supply routes (particularly for conventional natural gas) would ensure more security of supply, less emissions, lower costs and less dependence on a few dominant players in the global energy market.

More transparent and accountable progress towards alleviating energy poverty

The alleviation of energy poverty is one of the emerging objectives of EU energy policy (and is a key aspect of the competiveness objective). Although embracing a binding and ambitious energy saving target would undoubtedly reinforce the link the headline targets and this objective, ClientEarth also believes that greater transparency and accountability for progress towards this objective could be achieved by amending the Directives governing the Single Internal Energy Market to enshrine a harmonised EU concept of energy poverty and an explicit obligation on national energy regulators to report annually to the Commission on national measures to alleviate energy poverty and the impact of the market completion process on this problem.

A governance framework for the internal energy market that drives investment in energy infrastructure

The insufficient rate of investment in infrastructure development is related to the lack of appropriate regulatory incentives and long-term signals to meet EU priorities. The responsibility lies with national regulatory authorities who currently have not reacted to the investment challenge for 2020 and beyond, especially with respect to the 3rd Energy Package. The result is that investors are left to choose and under a typical scenario will likely to choose the investment with the lower risk profile to one that has a cross border nature. Some Member States have introduced incentives for innovation to counter this, however these are limited to a small number of countries and are not fully aligned with the EU's infrastructure priorities. The tariff methodology (setting the main conditions for the recovery of the investment costs for regulated networks) can provide an investment signal. These are again allocated by national regulatory authorities in accordance with national preferences as well as user and network particularities. Evidence suggests that national energy regulators are reluctant to provide incentives for projects of common interest, which might negatively impact their national customers for the shared and bigger overall benefit of costumers in several other Member States.[48] Without clearer accountability on the part of the national regulatory authorities and provisions within the regulatory framework for ACER to play a more active role in the implementation of the IEM, a unified approach to an energy market cannot be assured.

3 INSTRUMENTS

3.1 Are changes necessary to other policy instruments and how they interact with one another, including between the EU and national levels?

Changes are necessary to a range of policy instruments, including the following:

a) Structural and institutional reform of the ETS;

b) More robust governance of the non-traded GHG emissions under the Effort Sharing Decision (ESD);

c) A sustainable and community-oriented renewables directive for 2030;

[48] Impact assessment. Accompanying the document Proposal for a Regulation of the Europen Parliament and of the Council on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC. 19 October 2011.

d) Strengthened EU action to address energy poverty; and

e) Improvements in policy coherence between instruments.

Structural and Institutional Reform of the ETS

The EU's Emissions Trading System is in a state of serious malfunction. The present 2030 Green Paper and Commission's 2012 Carbon Market Report acknowledge that the ETS system is failing to achieve its fundamental objectives; namely, to drive energy savings, investment in the low carbon transition and prevent the risk of 'carbon lock-in'. The European Parliament's disastrous rejection of the planned 'back loading' of allowances and ultimate collapse of the carbon price was the final blow to a mechanism whose flawed architecture and politicised decision making processes have brought EU climate governance into serious disrepute. ClientEarth takes the view that regulatory failure in this context cannot be attributed to the ongoing economic crisis in Europe alone. Although depressed economic activity has reduced demand for allowances, the surplus in allowances and consequent collapse of the carbon price stem directly from the fact that despite being ostensibly designed as a scarcity model, the ETS is insufficiently flexible to respond quickly and effectively to changing circumstances – a problem that is exacerbated by the Commission's decision to seek political support for regulatory decision making; namely, the urgently needed back loading of allowances.

ClientEarth regards systemic reform of the ETS as a critical element of the 2030 policy design process. Indeed we take the view that ETS's pivotal position within the EU's climate and energy governance framework can only continue to be justified if:

a) the ETS is substantially reformed to ensure that it truly can operate as a responsive but robust scarcity model and thus have any hope of sending a sufficiently consistent and strong carbon price to drive investment and energy savings on the scales required;

b) the risk of policy failure in the ETS is mitigated through more ambitious, equitable and binding governance of the non-traded sources of the other half of the EU's GHG emissions;

c) the ETS is supported by complementary measures in key sectors such as emissions performance standards for power generation.

ClientEarth also acknowledges that substantially increasing the EU's GHG emission reduction ambition for 2030 will also require structural reform of both the ETS and ESD (or equivalent) mechanisms, which we strongly support.

Consistent with these views, ClientEarth submitted a detailed response to the Commission's earlier Carbon Market Report consultation process[49] setting out our views on what we consider to be the minimum acceptable reform necessary to the ETS. Those recommendations are summarised below and further developed to take account of the subsequent failure of the backloading vote:

Necessary Revision of the Annual Linear Reduction Factor for 2030 Pathway

Consistent with our support for a more ambitious and scientifically informed GHG target for 2030, ClientEarth strongly supports the revision of the ETS's annual linear reduction factor to ensure a credible trajectory towards meeting those targets.

New Institutional Capacity to Ensure Non-Politicised Regulation of the EU Carbon Price

ClientEarth strongly believes that one of the central priorities for the 2030 package – and indeed for the 2020 framework – is to ensure that the ETS can credibly function as a scarcity model. Demand for allowances will continue to fluctuate in the years ahead due to the inherently cyclical nature of modern economies and the impact of policies designed to drive energy saving and renewables penetration. However, an ETS with a tighter cap that fails to provide the legal architecture to allow for timely corrective action to maintain scarcity in the face of a changing world and the low carbon transition will not be fit for purpose. ClientEarth believes that this problem can be alleviated in part though policy reform of the ETS; however we are strongly of the view that effective reform also necessitates reform of the institutional arrangements for regulatory decision making.

The Commission's decision to seek political approval for the back loading plan and the failure of the backloading vote make clear that legislative bodies are an inappropriate mechanism for administering corrective action to maintain carbon price stability. In much the same way that responsibility for European monetary policy and price stability is administered by an independent but accountable, European Central Bank, we believe that responsibility for the stability of the European carbon price should be removed from the political domain. Responsibility for monitoring the functioning of the carbon market and taking corrective action to prevent a build up of surplus allowances – whether caused by depressed economic conditions, reduced demand for allowances caused by gains in energy efficiency and greater penetration of renewable, or the impact of any other unforeseen event or environmental crises - should be transferred to an independent, expert but accountable entity. This body should possess sufficient discretionary powers to 'learn by doing' but also explicit legal powers to permanently retire or delay the

[49] http://ec.europa.eu/clima/consultations/0017/organisations/client_en.pdf.

auctioning of allowances and thus ensure a strong and consistent carbon price signal within Europe.[50]

The need for a more flexible legal architecture

The ETS has suffered multiple wounds due to overly inflexible legal architecture that fails to provide the Commission (or other centralised entity) the necessary powers to ensure its effective functioning. As one of many illustrations, Article 10(a) of the ETS Directive provides a mechanism to protect sectors deemed at significant risk of carbon leakage. The recitals of the ETS Directive make clear the objective to avoid unnecessary windfall profits flowing to installations as a result of free allowances granted under this article. However, the law only provides for the removal of sectors from the eligibility every 5 years, even if sectors no longer meet the criteria for more than 1 year. Worse still, the legislation does not require any revision of the baseline emissions upon which eligibility criteria are to be measured.

ClientEarth also takes the view that allocation schedules should also be designed so that allowances available for both auction and free allocation reflect more closely the actual emissions for a given year. If such an approach was applied at installation level, the end of an accounting period would signify a true-up period, whereby the installation takes account of those allowances that were over allocated to them for that year. While incentives must remain in order to ensure a functioning secondary market, this should be coupled with limits on the ability to 'bank' allowances. A stringent approach would place the onus on the operator to demonstrate that over supply was a direct result of energy saving technology would grant the installation the privilege to bank the surplus forward. This would strengthen incentives for mitigation. In the case of non-surrender of allowances, a limit could be placed on the amount of surplus that may be traded in any given year (or longer accounting period). Above this threshold of tradable surplus, surplus allowances should be returned to the established registry and cancelled immediately. Any 'rewarded' surplus allowances, could be used for subsequent years or sold on the market. The installation would undergo the same verification procedure every year whereby any surplus correlated to a decrease in production levels (as opposed to efficiency gains or mitigation efforts) must be returned to the reserve and cancelled.

Alternatively, cancellation mechanisms could be applied at national level by linkages with national auctioning platforms established by the Auctioning Regulation. This approach would require matching national emissions inventories (see Monitoring Reporting and Verification Regulation) against the aggregate 'bubble' of allowances released for auction (and or granted for free.) Drops in emissions (or aggregate productivity levels) above a certain threshold could trigger an automatic or discretionary cancellation mechanism.

[50] The value of such an arrangement is further explored by W. Whitesell, *Climate Policy Foundations: Science & Economics with Lessons from Monetary Regulation* (2011) Cambridge University Press, at pp 200-205.

Mandatory revenue recycling should be a component of structural reform to the ETS

ClientEarth believes that the lack of mandatory revenue recycling into GHG mitigation projects was a major missed opportunity from the design of the current ETS, which should be addressed in the policy design of the 2030 package. We also consider that this has led to missed political opportunities. For example, in the US Regional Greenhouse Gas Initiative (the voluntary cap and trade scheme employed in several US States), revenue recycling is a key component. For example, the State of Massachusetts directs all of its revenues into clean energy programmes (over $178 million US since 2008) with a big focus on Energy Efficiency Investment programmes that help consumers with energy bills and living in more comfortable homes.[51] Many consider that recent decisions to significantly increase the ambition of the cap under the RGGI was influenced by the political attractiveness of more State money for these clean energy and refurbishment schemes that directly help consumers and protect them from rising energy bills. ClientEarth strongly supports mandatory revenue recycling as a component of a reformed ETS for 2030.

It is not yet appropriate to consider bringing additional sectors into the ETS

Before extending the scheme to new sectors, concept of emissions trading must first be reformed so as to provide credible evidence that it can achieve its core objectives. Moreover the verifiability and stability of emissions reductions in candidate sectors should be fully assessed prior to their inclusion. Additionally, the appropriateness of the ETS as a tool to achieve emissions reduction in new sectors should be evaluated and questioned, as other policy instruments may fit such sectors better.

Emissions from all sectors covered by the ETS should be treated equally

At present this is not the case for biomass. As detailed in our response to the Carbon Market Report, we support extending the ETS to biomass and specifically to end the zero emission rating of biomass, biofuels and bioliquids. Emissions from their combustion should be counted under the ETS. Such a move would not involve an extension of the regulated sectors, but would contribute to higher emission reductions; improve the availability and quality of data concerning biomass emissions within the ETS and promote the best performing biomass types. Discounting should only be allowed if, and to the extent that emission reductions are achieved.

EU climate policies should drive domestic action and avoid the downsides of international offsets within the ETS

ClientEarth strongly supports EU climate policies that drive domestic action and is aware of many concerns regarding the use of international offsets within the ETS. While limiting offsets cannot be considered as a sufficient in itself to address the fundamental problem of oversupply,

[51] http://www.mass.gov/eea/grants-and-tech-assistance/guidance-technical-assistance/agencies-and-divisions/doer/rggi-auction-proceeds.html.

ClientEarth nevertheless reiterates the view expressed in our response to the Carbon Market Report that all evidence supports the need for tough action on offsets in the next evolution of the ETS. We furthermore believe that the Commission should adopt a comprehensive approach to the reform of offsetting. To this end we urge it to evaluate the entire EU market with respect to further restriction on international credit use in the EU ESD.

Consequently, any current and future measures on international credit use in the EU ETS must also be followed by action on Member States purchasing credits for compliance with the Effort Sharing Decision. A revision of the relevant provisions in the Effort Sharing Decision alongside EU ETS policy will send a consistent message to the international credit market. Our more specific proposals concerning the weaknesses in and need for reform of offset use within the ESD are outlined below. ClientEarth also believes that reform of offset use should be coupled with more flexible legislative powers for intervention. In this regard, we believe there is also a case for transferring responsibility for the administration and oversight of (reformed) EU offset rules to the independent, expert EU ETS commission proposed above.

Lastly, ClientEarth also believes that while international offsets do not have a place in the post 2020 climate framework, lessons should also be learned from previous experiences in the execution of such bans or reforms. For example, lessons must be learned from the timelines of the recent banning of controversial HFC23 and N20 credits, which led to a floodgates of increased numbers of these credits entering the marketing prior to the date of effect of the ban. Similarly, credits from large scale non additional and unsustainable projects (large scale power supply projects which include large scale hydro but also energy efficient coal fired power plants) due to the 2012 cut-off for non LDC countries, represent the new wave of low grade international offsets. A rush of credits (under controversial additionality and sustainability assessments) into the market will diminish the price of carbon in the EU ETS. Additionally, the Commission must make clear that CERs and ERUs will only be accepted from countries that have made an international commitment to reduce GHG emissions by 2020. For example, ERUs from countries like Russia can no longer be accepted in light of COP 18 (Russia did not sign the Kyoto Extension agreement).

If project based mechanisms (whether international or at EU level) continue post 2020, the EU should develop complementary and rigorous sustainability criteria for offsets entering the EU market as a way avoid future integrity issues. Also, more transparent reporting, requiring installations to annually publicly report on the use of project credits (price per tonne, technology, location, co benefits etc.) including public consultation would contribute to incentivising installations to take on a more responsible approach to mitigation.

More robust governance of non-traded GHG emissions

One of the key weaknesses in the architecture of the 2020 package is the failure to establish more direct links between targets and investment, or between targets and investor certainty. We view this deficiency as due to a combination of failure to maximise financing opportunities (lack of revenue recycling under ETS or Effort Sharing instruments) and weaknesses in the legal and institutional framework, including low ambition within the non-ETS sectors with respect to targets and flexibilities. The more specific nature of these weaknesses can be explained as follows:

The basic architecture of the Effort Sharing Decision provides a good drawing board, but is weak in its current form

The existence of annual compliance requirements (an annual allocation of AEAs) coupled with ability to carry forward (similar to 'banking' within emissions trading scheme) represent the beginnings of a 'carbon budget' type approach. However, overly generous flexibilities (described below) and low target ambition prevent this architecture from driving political or institutional arrangements at national level to minimise policy risk and secure investment. We also understand that, both within the European Commission and in Member States, there is a lack of institutional capacity for implementation of non-ETS targets. Several factors contribute to this. The first is the comparative weakness in forward reporting requirements in the ESD. Few statutory guidelines exist for the content of reports that are required to be submitted by Member States. The Commission has limited ability to scrutinise national plans for Effort Sharing achievement, limited merely to the power to provide an opinion on whether reported plans are likely to lead to the achievement of 2020 targets. We also understand the Commission has limited ability to monitor the accuracy of Member States emissions inventories and use of flexibilities under the ESD. Were the ESD to become a Directive instead of a Decision, necessitating national transposition, this would of itself support increased institutional capacity and a higher profile for non-ETS targets.

While it will be important to preserve flexibility for Member States to choose which measures and sectors to focus their reduction efforts in non-ETS sectors, this flexibility does not have to be absolute. The following improvements should be considered to kick start national plans and policies in selected non-ETS measures such as measures to reduce natural gas (methane) leakage, transport electrification, building retrofits. In light of these weaknesses, we propose the following reforms to the Effort Sharing governance framework; namely:

- Establishment of clearer 'carbon budget' architecture for the Effort Sharing Decision, with no provision for international offsets in meeting them, so as to ensure domestic (i.e., EU) reductions;

- A Directive (rather than a decision) on EU climate action requiring national transposition placing statutory duties on national authorities (environmental protection agencies, or the

establishment of new bodies) to consider and work towards non-ETS reductions within their activities, and (if needed) to administer EU Effort Sharing financing at EU level;

- Establishment of a centralised Effort Sharing agency, comprised of national authorities, charged with disseminating best practice and advising the Commission on Effort Sharing Implementation. Roles for such an institution should include:

    - Determination or advising Commission of best practice to inform eligibility criteria for recipients of new Effort Sharing financing (such as an 'NER300' style mechanism for effort sharing sectors, monetising the annual sale of a percentage of AEAs).

    - Facilitating a cooperative approach by identification of 'joint implementation style at EU level' climate financing to achieve EU effort sharing targets at lower cost, and advising on technical requirements to support monitoring and verification of such schemes.

    - Advising Commission on adjustments to allocations of AEAs to establish a more agile 'carbon budget'

- An obligation to develop national plans according to more detailed statutory criteria ensuring consideration of key measures or sectors, and ensuring consistency with other relevant plans and programmes under Directive 2008/50/EC (the Ambient Air Quality Directive) and Directive 2001/80/EC (the National Emissions Ceiling Directive).

- Depending on the burden sharing model adopted, a legal architecture to drive investment across borders within the EU, in ways that do not require trading.

- If trading of AEAs is to remain a feature post 2020, we propose the:

    - Establishment of a registry to improve transparency of AEA trades and trade prices, leading to increased political pressure to utilise them for mitigation purposes.

    - Requirements or fiscal incentives for Member States to utilise all or a portion of AEA trade revenues for mitigation projects in non-ETS sectors (see discussion of financing below).

The Effort Sharing Decision (or alternative non-ETS framework) must drive domestic action, and international credits should not be allowed for ESD compliance after 2020

As a means to enhance overall cost effectiveness of the ESD commitment, Member States are currently permitted to make use of a set of flexibilities which includes freely transferring Effort Sharing allowances (Annual Emission Allocations/ AEAs) between years, the ability to trade surplus AEAs between Member States, but also the purchase of international credits (CDM and JI). The effect is that Member States at risk of non-compliance are provided with several easy escape routes or paths of least resistance. The overall amount of the EU reduction effort that can be met by recourse to international credits is unacceptable - calculations show that up to 2/3 of the overall reduction required by 2020 can be met by international credits.52 Faced with the alternative of buying cheap international credits, Member States are disincentivised from focusing on domestic policies. Additionally, the EU risks locking in high carbon infrastructure in key sectors (primarily buildings, transport and agriculture) as a result of this failure of the Effort Sharing Decision to ensure domestic action.

The post-2020 Effort Sharing Decision must therefore seek to reframe the flexibilities into a set of tools that drive investment towards domestic emission reductions, instead of away from them. This means that CDM and JI credits (as they operate today) do not have a place in the Effort Sharing Decision post 2020. Other kinds of flexibilities, such as transferring or trading surplus reductions, and bilateral emission reduction projects across borders within the EU, require improved governance if they are to be part of the Effort Sharing Decision beyond 2020. The objective must be to move towards new or improved flexibilities that come with less risk of undermining climate ambition than the current recourse to the international offset market.

New and/or improved financing mechanisms are needed to help unlock reductions in Effort Sharing sectors

The Effort Sharing Decision contains a number of untapped opportunities for innovative financing solutions. New and/or improved financing mechanisms are needed to help unlock reductions in Effort Sharing sectors. The Effort Sharing Decision contains a number of untapped opportunities for innovative financing solutions. It contains its own potential revenue streams that are likely to be grossly underutilized in the compliance phase (2013-2020). AEAs can be monetized and leveraged, by selling or auctioning a small portion to Member States whereas they are currently given for free. This could create a funding stream (similar to the NER300 in the ETS) that could be invested in open tender and administered by the European Banks (or national intermediaries) into selected best practice mitigation projects in non-ETS sectors. Alternatively, revuenue from AEA trading between Member States, can be reinvested via an

52 If the sum of reductions over the whole period is taken as the total reduction effort (roughly 1200 MtCO2eq.), CDM/JI credits can make up 2/3 of this reduction (roughly 700 MtCO2eq). http://www.europarl.europa.eu/committees/en/studiesdownload.html?languageDocument=EN&file=22071 at page 10, Figure5.

intermediary (such as the EIB or national bank) to unlock private sector capital in non-ETS sectors.

If trading between Member States is to be preserved post 2020 in a non-ETS framework, structural changes will be required to ensure liquidity of the AEA market and to establish a minimum amount of domestic action in all Member States. Replacing the free transfer of future allowances into a given year (carry forward) and the free transfer of surplus allowances (carry over) with the mandatory sale of surplus AEAs in any given year is an option to help improve the liquidity of the AEA market. Notably, AEA trading between Member States will only ever occur if Effort Sharing targets are tight enough to ensure sufficient demand for the purchase of AEAs and trading should not be relied on as the primary means of financing reductions in Effort Sharing sectors. Lessons from the ETS demonstrate that, in the absence of regulatory powers to adjust the cap in response to changing circumstances (such as economic recessions, overachievement of complimentary policies) maintaining scarcity cannot be assured.

AEA transfers between Member States are currently unproven in the Effort Sharing Decision, and will (like ETS) depend on scarcity being maintained in the face of changing economic and policy environments. Other options exist that do not require trading. One such option is that, similarly to the NER300, a designated portion of AEA's could be auctioned or sold to Member States to create a pool of capital that can be leveraged/scaled up by the European Banks and reinvested into mitigation projects either according to burden sharing principles or as open tender across Member States (e.g. a quantitative performance approach is a way of rewarding ex-post mitigation[53]). The advantages to utilizing the European banks and/or a public body to channel and leverage funds are the possibility to improve trust through a centralized approach guided by Commission implementing legislation. Also, there may be less consistency in approach if funds are simply channelled directly to national banks. The possibility to significantly leverage funds due to the ability of the EEB and EBRD to draw down deep pools of capital from institutional investors such as pension funds that are not accessible to smaller investors and minimize investment risk also support the case for a role for the European Banks in Effort Sharing implementation.

Another mechanism to consider is the utilization of available European facilities such as more targeted use of tthose instruments under the Cohesion Policy (Cohesion Fund, ERDF, ESF) to unlock investment in non-ETS sectors should be considered. The funding could be used to generate the enabling environment for the private sector to further leverage investments into non-ETS sectors and importantly if it is administered by a designated agency (see governance section on ESD below) this could provide the leadership and guidance for investors who might

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Oxford Energy and Environment Brief. Mobilizing the Private Sector Quantity-Performance Instruments for Public Climate Funds. August 2012. http://www.oxfordenergy.org/wpcms/wp-content/uploads/2012/08/Mobilizing-the-Private-Sector.pdf

otherwise choose to fund opportunities with the lowest capital intensity rather than the ones with the lowest cost over time.

Current mechanisms can be utilized and improved to direct capital into large scale mitigation activities, which would otherwise not take place due to high upfront capital spend. Green Investment Schemes (GIS) or Community Level Project crediting could be a good starting point from which to build a financing system that rewards quantifiable emission reductions. Analogies and improvements can be made to the existing national GIS which are voluntarily used by many European countries (including Slovakia and Hungary) to reinvest profits from the sale of their Kyoto allowances (AAUs) into Effort Sharing sectors.

Mandating GIS within the Effort Sharing Decision could be a way to achieve emission reductions, channeling and leveraging a portion of profits from AEA trades. The problem with existing national GIS, however, is the lack of a streamlined, transparent and robust approach to carbon accounting. In order to provide an acceptable standard, any project based mechanism would need to come with Commission implementing legislation or guidelines for project eligibility criteria and accounting. Standardized baselines and project eligibility (e.g. based on specific savings thresholds in the building sector) for example would ensure that emission reductions lend themselves easily to the monitoring, reporting and verification process.

As an alternative to mandating GIS, an incentives based approach to revenue recycling could be followed. For example, a system whereby Member States who elected to invest AEA trade revenue into selected best practice mitigation projects in ESD sectors could be eligible to have this funding ‘matched’ by an equivalent amount of additional cohesion funding.

Such mechanisms can be combined with burden sharing models so that Member States with lower amounts of cost effective potential are incentivised to finance investments in Member States with high amounts of low hanging fruit (see burden sharing section below).

In summary, more could be done with Effort Sharing allowances to either monetise them or leverage revenue from their sale. Not all reinvestment options depend on trading. Together with the use of European instruments like the Cohesion Fund, new financing options should be proposed as part of a package of innovative financing to spur reinvestment in building retrofits, transport electrification and other measures that are good for the green economy and protect consumers from rising energy bills.

Improved Effort Sharing financing and reporting requirements are an opportunity to improve policy coherence with Energy Efficiency and Renewables policies

For many Member States, a large amount of the cost effective mitigation potential that exists in Effort Sharing sectors is located in the buildings sector. Stronger Effort Sharing targets, coupled with new financing mechanisms can assist with the delivery of Energy Efficiency objectives, and help encourage overachievement of Energy Efficiency targets. The reverse is also true, and a strong Effort Sharing decision, covering all non-ETS sectors, will never displace the essential need for a binding Energy Savings target. The Effort Sharing Decision is the structural 'chapeau' covering the potential from many sectors above and beyond the potential from improved energy efficiency.

Reform of the Effort Sharing Decision has potential to improve policy coherence between Energy Efficiency and Renewable Energy Directives, and the GHG target. The first is by alignment of targets and structuring Effort Sharing targets to include the full range of cost effective mitigation potential existing from energy efficiency measures falling under the Effort Sharing Decision. In other words, the cost effective potential from energy efficiency and energy savings measures above that which underpins targets and objectives of the Energy Efficiency Directive must be included in setting national Effort Sharing Decision targets. In this way, the Effort Sharing Decision can help drive over achievement of Energy Efficiency Directive.

The second way is by alignment or earmarking of financing. As already explained, the Effort Sharing Decision, via the allowances (AEAs), contains untapped revenue streams that have potential to be monetised, leveraged and reinvested. Not all of these options require trading. A portion of Effort Sharing finance could be 'ear marked' in legislation (to provide a clearer investment signal and help minimise policy risk) for reinvestment in building retrofits or renewable energy deployment in heating and cooling sectors falling within the scope Effort Sharing decision so that, as we mention in the section above on revenue recycling, the auctioning revenues result in powerful benefits for consumers (lowering energy bills and making homes more comfortable). By earmarking a portion of Effort Sharing finance for energy efficiency projects, the Effort Sharing Decision could do more to help with the delivery of energy efficiency objectives.

A third way that coherence can be improved is by strengthening and aligning reporting requirements. Currently, there are few statutory guidelines informing Member States plans for meeting the annual compliance requirements of the Effort Sharing Decision. Reporting requirements under the Effort Sharing Decision could, for example include requirement for Member States to report on the contribution that energy efficiency policies will make to the achievement of Effort Sharing targets, and what additional measures are planned to improve energy efficiency of buildings to help meet Effort Sharing, beyond the minimum planned to ensure achievement of the requirements of the Energy Efficiency Directive. Additionally,

improved coherence in compliance and penalty regimes could do more to drive new policy measures. For example, some flexibilities under the Effort Sharing Decision (such as the ability to trade surpluses) could only be made available to Member States that are meeting the requirements of the Energy Efficiency Directive and other key pieces of sectoral legislation sitting underneath the Effort Sharing Decision. Lastly, it is important to say that any future policies on international offsets must be aligned, on a 'same rules apply' basis, so that offsetting rules in a future ESD must match ETS' international credit policies.

A sustainable and community-oriented renewables directive for 2030

As already stated, ClientEarth strongly supports the extension of the RES Directive to the 2030 framework. However, we also strongly urge the Commission to refine the present approach to RES regulation by:

- Ensuring that legislative proposals for an extended RES Directive clearly reflects well documented concerns about the use of biomass for energy; and
- Promoting community RES generation capacity within the 2030 RES Directive.

The need for a sustainable approach to biomass in the post-2020 regime

ClientEarth takes the view that RES regulation within the 2030 framework must clearly acknowledge the concerns connected to using biomass for energy and to that end the Commission should develop legislative proposals that take account of these concerns.

Most of EU renewable energy comes from biomass such as wood and wood pellets for electricity or heat generation, or agricultural crops for transport biofuels. According to the Commission's Renewable energy progress report,[54] already today biomass constitutes more than 60% of EU renewable energy. Even when biofuels are not considered, biomass still represents 50% of renewable energy in electricity and heating. The dominant role of biomass is expected to continue at least to 2020 under current policy.

In absolute terms, biomass is expected to provide about 75 mtoe of energy in 2013, rising to 86 mtoe in 2020 – that is four times what wind energy provides and more than ten times solar photovoltaic.[55] Figures would be higher still if biofuels were added in.

[54] Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *Renewable energy progress report*, COM(2013) 175 final, Brussels, 27.03.2013.

[55] According to the *Renewable energy progress report*, onshore and offshore wind taken together are expected to contribute less than 20 mtoe in 2013 and about 20 mtoe in 2020. Solar photovoltaic lags behind at about 4 mtoe in 2013 and 7 in 2020.

Unlike wind and solar, burning biomass for energy causes higher carbon emissions than coal on an energy unit basis. Wood combustion releases about 112 grams of CO2 for each mega joule of energy generated (gCO2/MJ). Biofuel combustion causes emissions of about 71 gCO2/MJ.[56] In contrast, coal emits about 100 gCO2/MJ, oil about 75 gCO2/MJ and natural gas only 56 gCO2/MJ.[57] That said, emissions from the combustion of biomass and biofuels can be reabsorbed when vegetation grows back. From this perspective, burning biomass or biofuels can be compared to entering into a carbon debt with the atmosphere – a debt which may be repaid when equivalent amounts of carbon are reabsorbed by growing vegetation. However, the time needed for this carbon cycle to close depends on several circumstances, notably the type of biomass or biofuel burnt.

The Commission's Joint Research Centre has recently completed a review of available scientific literature on carbon emissions from forest biomass.[58] The conclusion was that the assumption underpinning European policy that biomass is a carbon neutral energy source is not valid under policy-relevant time horizons. It may take up to 500 years before biomass emissions are offset when biomass comes from stem wood. Forest residues achieve better results: offsetting their emissions can take up to 74 years.[59] At present, these different impacts are not taken into account by a policy which treats all biomass alike.

Burning biofuels from agricultural crops do not create as significant a carbon debt, thanks to the short planting, harvesting and re-planting cycles of agricultural crops. However, as the Joint Research Centre report acknowledges, emissions are substantially higher for biofuels produced from forestry material rather than agricultural crops. This is mainly due to the significant energy intensity of the production process of ligno-cellulosic biofuels.[60] Yet, in direct opposition to the conclusions reached by the Joint Research Centre, the recent Commission proposal on biofuels suggests that Member States should make significant investment to promote 'advanced biofuels' such as ligno-cellulosic biofuels.[61]

Carbon emissions are not the only relevant environmental impact directly associated with biomass and biofuels. Harvesting stem wood and taking forest residues away from the field causes biodiversity and soil carbon losses, particularly where soils are poor in nutrients. The large-scale promotion of biomass and biofuels invites the expansion of dedicated plantations

[56] Emission values do not include emissions from indirect land-use change (ILUC).
[57] Figures are based on IPCC default emission factors for stationary combustion in the energy industries as contained in Gómez D. R. et al. (IPCC), *2006 IPCC Guidelines for National Greenhouse Gas Inventories*, Vol. 2, Table 2.2, pp. 2.16-2.17.
[58] Marelli L. (ed.) (JRC), *Carbon accounting of forest bioenergy: Conclusions and recommendations from a critical literature review*, 2013, available at: http://iet.jrc.ec.europa.eu/bf-ca/sites/bf-ca/files/files/documents/eur25354en_online-final.pdf
[59] It is worth underlining that, for the period that carbon remains in the atmosphere, the adverse effects it causes on the Earth's climate cannot be undone, even if an equivalent amount of carbon is sequestered from the atmosphere at a later time.
[60] Marelli L. (in note 5), pp. 34 and 41.
[61] Proposal for a Directive of the European Parliament and of the Council amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources, COM(2012) 595 final, Brussels, 17.10.2012.

and monocultures, damaging the local biodiversity. While expansion may be contained by yield increases, if these are obtained through fertiliser, the objective of reducing Europe's dependence on fossil fuels will at least in part be negated, as most fertilisers are made from fossil resources. Furthermore, fertiliser-induced emissions of nitrous oxides contribute to water pollution and GHG emissions. The requirements of water for growing and processing agricultural crops into biofuels may reduce freshwater quality and availability in vulnerable regions.

Other, indirect environmental impacts deriving from the use of biomass and biofuel should also be taken into account if European policy is to achieve its objectives of reducing emissions and improving security of energy supply. Promoting biomass and biofuels, notably by means of public subsidies, can hardly be justified if the achievements of the policy were more than outweighed by damage caused elsewhere. The relevance of indirect impacts is confirmed by EU law[62] and, with the recent proposal on biofuels, the Commission has acknowledged that indirect effects on land use must be addressed.[63]

While the indirect impacts of biofuels have been thoroughly and sufficiently researched, little attention has been paid to the indirect impacts of biomass. Nonetheless these may be significant. First of all, biomass – like biofuels – can cause indirect land-use change where forest plantations are established on e.g. agricultural land. Secondly, subsidies and targets for biomass energy may distort competition by enabling the subsidised energy industry to access raw material that the market would otherwise allocate to higher-value uses, such as product manufacture. Policy-driven energy demand for biomass may thus force other demands to be satisfied from less sustainable raw materials. For example, demand for wood residues from the energy industry will increase their price and reduce their accessibility to the furniture industry. The function performed by furniture made from wood residues will need to be fulfilled, at least in part, in other ways, e.g. through increased recourse to plastics. Such displacement leads to negative overall environmental outcomes, a waste of public money and higher consumer prices. Does this square with the EU's resource efficiency agenda?[64] Is this good environmental, energy or industrial policy?

Increased burning of biomass to meet EU renewable targets will also increase emissions of PM2.5, contributing to increased morbidity and mortality. EU climate policy must limit and effectively manage such trade offs which have a tangible negative impact on human health.

Moreover, treating biomass and biofuels in the same way as any other renewable energy source may discourage investment in other renewables. Neither biomass nor biofuels – unlike other renewables – require significant capital and infrastructure investment. It is much easier (but

[62] Art. 19(6), Directive 2009/28/EC and Art. 7d(6), Directive 98/70/EC, as amended.
[63] See note 8.
[64] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *A resource-efficient Europe – Flagship initiative under the Europe 2020 Strategy*, COM/2011/0021 final, Brussels, 26.01.2011.

environmentally questionable) to import wood pellets from forests across the ocean and burn them in existing coal plants than plan and execute a long-term, sustainable shift to renewable energy. There is therefore a risk that biomass and biofuels compete with other renewable energy sources more than with fossil fuels.

The concerns associated with biomass and biofuels need to be resolved if the credibility of current and future EU renewable energy policy is not to be undermined. The debate on the 2030 climate and energy framework provides a precious opportunity to achieve this. In this light, it is incredible that the Commission Green Paper does not even mention biomass. Eschewing the problems does not help making the right choices which can stand the test of time. It rather leads to poor policies which need to be revised shortly after adoption, causing disruptive regulatory uncertainty and waste of scarce public money. Biofuels are a case in point.
Yet, making biomass sustainable is possible and it does not require a heavy regulatory burden.

First of all, the contribution that biomass is allowed to make towards renewable energy targets should be limited to reflect the finite availability of sustainable biomass and the need to encourage investment in other renewable energy sources. This limit should be set at around the level of biomass consumption for energy in 2020 as reflected in Member States National Renewable Energy Action Plans.

Biofuels from agricultural crops should be promoted only insofar as they can reasonably be expected to cause little or no ILUC. More research is needed to assess the potential of advanced biofuels such as those from algae. Others, such as ligno-cellulosic biofuels, raise similar concerns as forest biomass and their production entails high energy requirements. In line with the precautionary principle and subject to further studies, they should not be promoted. Importantly, no transport-specific renewable energy target should be included in the 2030 climate and energy policy. As emission reductions and moving away from fossil fuels give the same benefits regardless of the sector where they are achieved, there is no reason to set out a target for transport.

Subject to the said overall limits, sustainability rules should be laid down which differentiate various types of biomass according to their specific impacts, notably on emissions, biodiversity and soil quality. High-risk biomass (e.g. from stem wood) should not be promoted. Low-risk biomass (e.g. waste wood) could be supported as a renewable energy source with little ad hoc safeguards. Energy uses of medium-risk biomass – such as forest residues, by-products (e.g. wood chips, animal fats or tall oil) and agricultural residues (e.g. straw) – should benefit from public support only if certain safeguards are met.

To give some examples, safeguards applying to forest and agricultural residues should include a requirement to leave a certain quantity of the residues in situ, in order to protect biodiversity and soil quality. The required level of residue retention should be tailored to local conditions. Regarding by-products, information should be collected about their availability, existing uses and

market price. Promotion of energy uses of by-products should be gauged on the basis of that information to encourage the use of under-utilised materials while avoiding interfering with alternative, higher-value demands. At the end of its life, biomass falling under any category may be used for highly-efficient energy generation.

No heavy-handed regulatory intervention would be needed to implement the proposed approach. Subsidies and targets need to be revisited to focus on eligible biomass (low-risk biomass and medium-risk biomass which complies with safeguards) instead of any type of biomass. Keeping overall expenditure for the policy unchanged, more sustainable biomass would benefit from more targeted support, achieving the environmental objectives of the policy in a more cost-effective manner. Business would also benefit from such approach, as sustainability rules will no longer need to require complex life-cycle emission calculations (as is currently the case for biofuels), but only the correct identification of the type of biomass being used. Analyses of life-cycle emissions would still be relevant, but they would serve to estimate the performance of different types of biomass and on that basis allocate them into a risk category. Competent authorities administering the policy would also have an easier task verifying compliance. The proposed approach also has the advantage of not being absolutely novel. Similar rules have already been adopted in the United States.[65]

ClientEarth therefore recommends:

- In the context of the 2030 climate and energy debate the Commission should clearly acknowledge the concerns connected to using biomass for energy.
- The Commission should make legislative proposals to:
    - Set a limit on the contribution that biomass should be allowed to make towards renewable energy targets, based on estimates of the amount of sustainable biomass that would be available for energy;
    - Ensure the sustainability of biomass energy use based on biomass categories defined according to impacts on carbon, biodiversity and soil quality, among others;
    - Exclude high-risk biomass from any public support, while promoting energy generation from low-risk biomass and, subject to safeguards, medium-risk biomass;

[65] See the regulations on biomass adopted in Massachusetts for the purposes of their Renewable Portfolio Standard: http://www.mass.gov/eea/energy-utilities-clean-tech/renewable-energy/biomass/renewable-portfolio-standard-biomass-policy.html

- Propose safeguards in respect of the use of medium-risk biomass. Safeguards should ensure that the impacts of biomass extraction are controlled (e.g. a certain quantity of residues should be left in situ, depending on soil quality) and that biomass for energy policy does not impair resource efficiency (e.g. subsidies for energy use of biomass should not divert biomass from other, higher-value uses);

- No transport-specific target should be included in 2030 climate and energy policy.

Building community based renewables generation capacity

One key approach towards making further progress on RES targets will be to promote increased community power schemes. There is no consensus on the precise definition of "community power". Nevertheless, ClientEarth understands community energy generally as projects where citizens own or participate in the production of the energy they use. There are also several characteristics that may be common to community power schemes/projects:

- Membership by ordinary citizens or groups of citizens, where operation of the project is based on active involvement and/or participation;

- The project is intended to derive tangible local or social benefits;

- An organisational structure that demonstrates self-governance or participatory democracy by all members of the project;

- Decarbonisation, or the intent to move away from fossil fuels as a source of power as an over-arching goal;

- Project benefits are realised by the individuals or communities close to the project; and

- Profits are either re-invested into community power, or realised by the members of the project.

ClientEarth considers that proactive support for community-based RES by both national governments and EU institutions will help place citizens and communities at the centre of the low carbon transition. A focus on enhancing enabling environments for community renewable energy schemes will also build consumer choice, facilitate better public understanding and acceptance of the energy system transformation, and build empowerment, all of which will help alleviate public opposition to the energy system transformation that currently threatens implementation of the Renewables Energy Directive. Furthermore, these changes operate to remove existing market failures by enhancing the levels of competition in the European energy market, reducing external costs related to climate change, and improving security of energy supply.

The Commission has rightly recognised the contribution that community power can have in integrating renewables into the internal market.[66] However, expansion in the use of this bottom-up approach to renewable energy production will require the right type of incentives. The Commission has realised the importance of easier access to capital (e.g., public support schemes), and simplified administrative regimes (e.g., planning and permitting) for enabling continued growth of community RES schemes.[67] Notably, the latter is already required by Article 13(1) of Renewables Energy Directive, which calls for permitting procedures for renewable energy to be, inter alia, proportionate, limited in time, and facilitated for smaller or decentralized projects. Unfortunately, this is not an area where a lot of progress has been made among Member States.

There is a particularly strong argument for ensuring that the above measures are available for community RES projects, because such schemes usually take place on a small scale. If community RES projects are overburdened with administrative barriers, and if left to fend for themselves against traditional market forces, they may not be able to thrive. Therefore, national support schemes and other empowering measures will be necessary to enable these types of projects on a meaningful scale, even if national support schemes for more mature RES schemes are cut back.

Furthermore, schemes will need to promote buy-in from communities, and promote full and effective participation in the development and operation of community RES projects. As the EU and its Member States look both into past lessons, and into the future beyond 2020, a lot can be learned from pursuing strategies that promote community ownership and participation in the development of renewable energy. First, countries which historically have pursued community ownership of renewables, such as Denmark and Germany, have led the pack in developing RES. In Germany alone, 65% of its renewable energy capacity is community owned.[68] However, many countries are currently experiencing public backlash against “centralised” renewables, where projects do not have a good track record of promoting effective public engagement, or shared benefits with communities. Even in countries like Denmark and Germany, large investors are starting to push local initiatives out of the market.

In order to provide a stronger footing for community-owned energy, ClientEarth supports the inclusion of an explicit national targets for building community based RES generation within the extended Renewables Energy Directive. Such a target is not unheard of. For example, within the UK, the Scottish government has set itself a target of generating 500 MW of community and

[66] European Commission, “Renewable Energy: a major player in the European energy market,” COM(2012) 271, Brussels, 6.6.2012, p. 9.
[67] European Commission, “Renewable Energy: a major player in the European energy market,” COM(2012) 271, Brussels, 6.6.2012, pp. 4 and 10.
[68] Association Euoropéenne pour l’Information su le Développement Local (AEIDL), “Europe in Transition: Local Communities Leading the way to a Low-Carbon Society,” p. 20.

locally-owned renewable energy by 2020, in addition to its goal of 100% RES consumption.[69] While this target is not legally binding, it has already achieved 40% of its goal, and it is on track to meet its overall target by 2020.[70] Additional action beyond a tartget will certainly be needed both at the EU and Member State level. For instance, At the EU level enhanced guidance will be needed to ensure that State Aid remains a viable options for supporting community RES. Nevertheless, as a framework, a binding target on community RES would provide the impetus needed by States to unlock the vast potential of RES that currently being overlooked.

There is no doubt that a legally binding target has played a decisive role in driving implementation of the Renewables Directive across the EU. Thus, ClientEarth believes that a binding target on community RES could likewise spur the additional measures that will be needed at EU and Member State levels to drive the development of RES as a major energy source of European citizens. In deciding what to do with the Renewables Energy Directive beyond 2020, it will be important to distinguish community RES from "big" or centralized RES. It is our position that continued targeted support for community RES will further contribute to increased shares of renewables without having undesirable impacts on energy markets or prices, and in fact can enhance competition and contribute to energy market integration. In fact, such differentiation may very well be needed in order for community power to keep growing. For example, in Denmark and Sweden, where feed-in tariffs have been tapered back, community wind growth has stopped.[71]

As mentioned above, past experience with support for community RES demonstrates the value of having supportive legislation and policies in place that facilitate community ownership of RES. As a member of the Community Power Project (Co-Power Project),[72] ClientEarth and a multitude of other civil society organisations, citizen groups, co-operatives, local governments and community RES project proponents aim to raise awareness in the near future among members of the public and policy makers on the benefits of supportive frameworks for community RES.

Strengthened Action to address Energy Poverty

Energy poverty is a problem that is estimated to affect up to 125 million European citizens spanning almost every Member State.[73] Despite consensus within the political and policy

[69] *2020 Routemap for Renewable Energy in Scotland*, Section 3.9, (2011), available at http://www.scotland.gov.uk/Publications/2011/08/04110353/ScreenPDF (accessed 24 June 2013).
[70] edie Energy, "Scotland on track for community renewable target," (29 April 2013), available at http://www.edie.net/news/6/Scotland-on-track-for-community-renewables-target-/ (accessed 21 June 2013).
[71] Mark Bolinger, *et al*., "A Comparative Analysis of Community Wind Power Development Options in Oregon," Prepared for the Energy Trust of Oregon (July 2004).
[72] The Project *Community Power: enabling legislation to increase community ownership for RES projects across Europe* is an Intelligent Energy – Europe (IEE) funded project that aims to develop EU and national legislation and financing to increase citizen participation in, and ownership of RES projects across Europe.
[73] European Economic and Social Committee President, November 2012 http://www.eesc.europa.eu/?i=portal.en.press-releases.25313; see also Dr Stefan Bouzarovski-

communities that energy prices will continue to rise for at least the next decade irrespective of the substantial additional cost implications of efforts to decarbonise the European energy system,[74] EU energy law and policy is insufficiently robust in this context to drive effective remedial action at national level or to support better understanding, monitoring and thus alleviation of this EU-wide problem. ClientEarth takes the view that this weakness in the climate and energy acquis will result in a low carbon transition that causes significant social injustice, itself arguably in breach of the EU Charter on Fundamental Rights which requires Member States to implement EU law in compliance with the right to a decent standard of housing, but almost certainly a stimulus for more entrenched public opposition to this process.

Weak governance in the context of energy poverty essentially arises in three key contexts; namely: (1) the absence of a harmonised EU definition of the concept of 'energy poverty'; (2) the lack of a clearly defined minimum threshold of what constitutes 'appropriate measures' to mitigate this problem; and (3) weak arrangements for EU or national scrutiny of Member State action to address energy poverty. ClientEarth strongly urges the Commission to include proposals for reform in each context as part of the 2030 governance design.

The absence of an EU definition of 'energy poverty'

Although the Third Package of Energy Market Directives 2009/72/EC and 2009/73/EC ('IME3') introduced important new obligations on Member States and national energy regulators to protect final energy consumers; to ensure that there are 'adequate safeguards' in place to protect 'vulnerable customers'; and to take appropriate measures to address energy poverty where it is identified; the legal framework does not define the concept of energy poverty. Although Member States are required to adopt a national definition of the concept of 'vulnerable customer', they retain a discretion to exclude the issue of energy poverty from this definition. The Commission may consider that the absence of an EU level definition facilitates the development of tailored national approaches to this issue; however, ClientEarth takes the view that it instead serves to weaken the traction of what few obligations do apply to alleviate this problem; undermines the potential for developing an EU-wide understanding of the nature and scale of the problem and the impact of national action in this sphere; and renders it difficult if not impossible to challenge failure or manifestly inadequate action at national level.

The lack of a clearly defined minimum for what might constitute 'appropriate measures' to mitigate this problem

Although the IME3 Directives require Member States to take 'appropriate measures' to address energy poverty where it is identified, the lack of an EU definition of what this concept means

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Buzar, *'Energy Poverty in the EU: A Review of the Evidence' (2011)* University of Birmingham: *http://ec.europa.eu/regional_policy/conferences/energy2011nov/doc/papers/bouzarovski_eu_energy_poverty_background%20paper.pdf*.

effectively removes a consistent EU law threshold for taking such measures. Thus the Commission's power to exercise oversight of national compliance is only triggered when a Member State decides to identify the existence of this problem. While the IME3 Directives set out a range of possible measures that might be deemed 'appropriate' for these purposes, none are identified as mandatory thus there is once again no clear legal threshold for measuring national compliance with the obligation to take appropriate measures. Equally, although Member States are obliged to ensure that rights and obligations relating to 'vulnerable customers' are applied – this protection does not necessarily extend to those experiencing energy poverty because of the discretion to exclude this category of customer from this concept.
However, perhaps one of the most serious substantive weaknesses concerning the obligation to mitigate energy poverty arises in the context of the Energy Efficiency Directive 2012/27/EU, which imposes few if any enforceable obligations to prioritise energy efficiency measures for households in energy poverty despite being widely understood as the critical lever for alleviating this problem. One of the key weaknesses in this regard is the absence of a legally binding EU or national obligation to deliver energy savings. However, even within the weak model of governance provided by this key Directive, little if any provision is made to ensure the prioritisation of energy efficiency for households in energy poverty. Article 7, which contains one of the most important obligations in the Directive in that it requires Member States to create an 'energy efficiency obligation' on energy distributors and/or retailers, simply confers a discretion on Member States to decide whether to require the prioritisation of energy efficiency measures for such households. Equally, in the context of their duties under Article 15 to assess the energy efficiency potential of their national gas/electricity infrastructure by 2015 and identify concrete measures and investments for the introduction of cost-effective energy efficiency improvements to that infrastructure, Member States retain a discretion to decide whether to permit social tariffs in transmission and distribution. The Energy Performance of Buildings Directive 2010/31/EU furthermore contains no explicit provision concerning the alleviation of energy poverty despite being an important potential driver of energy poverty alleviation. The lack of mandatory recycling of auctioning revenues which would support investment in energy efficiency and reductions in energy poverty is another missed opportunity.

Weak arrangements for EU or national scrutiny of Member State action to address energy poverty

Although the IME3 framework creates a unique obligation on Member States to create powerful independent national energy regulators to monitor and ensure compliance, and in particular compliance with consumer protection obligations, their powers to challenge insufficient action to mitigate energy poverty are cast into doubt because their specific legal powers to scrutinise compliance with public service obligations are expressly linked to the notion of the 'vulnerable customer', which may or may not exclude those in energy poverty depending on the scope of the definition adopted by Member States. Similarly the general obligation imposed on the national regulators to ensure that consumer protection measures are effective and enforced is limited exclusively to those measures listed in Annex 1 – none of which relate specifically to

measures to alleviate energy poverty. The Commission's role to monitor national action is also relatively limited. The absence of a consistent EU definition of energy poverty and the considerable latitude given to Member States to take action in this context considerably reduces the scope for effective centralised monitoring and enforcement. Even Member States' reporting obligations are weak. On the one hand Member States are required under the IME3 Directives to report to the Commission on the, inter alia, 'social' impacts of market liberalisation, which arguably should include impacts on exacerbating or alleviating energy poverty; however, the equivalent obligation under the Energy Efficiency Directive to report on national implementation is completely silent as to the Member States' obligation to explicitly report on measures taken to use energy savings as a lever for alleviating energy poverty.

ClientEarth thus calls on the Commission to prioritise the concept of a socially just energy transition within the 2030 climate and energy acquis. As a minimum:

a) Member States should be required to include the concept of energy poverty within the national concept of a 'vulnerable customer' which has the effect of triggering the role of national energy regulators in delivering close oversight of action;

b) The EU should adopt a binding definition of what constitutes energy poverty and thus clarify the threshold for taking appropriate measures;

c) A legal minimum for 'appropriate measures' should be specified – in particular in the context of orientating energy efficiency measures towards households in experiencing this problem;

d) Member States should be explicitly required to report annually to the Commission on the scale of energy poverty experienced at national level and what action is being taken to address this problem.

Improved Policy Coherence

Greening public procurement

ClientEarth supports a strengthening of the 'green' aspect of EU public procurement rules and making the Green Public Procurement criteria[75] into binding provisions within Directives in order to legally oblige all public bodies, central, regional and local to purchase products and services with low carbon or energy savings impacts. Reform of this nature would also support further development the market of low carbon and energy savings technology.

[75] http://ec.europa.eu/environment/gpp/index_en.htm.

To demonstrate this point, Article 6 and Annex III of the Energy Efficiency Directive establish some requirements for the public sector to purchase through public procurement high performing energy-efficiency products, services and buildings. Additionally these provisions encourage Member States to extend these requirements to the regional and local levels of government. By setting public procurement requirements correctly, the state can act as a 'launching customer', driving innovation in energy efficiency design due to the large volumes of products and services it purchases each year.[76] For example, in 2009 the public sector spent over €2,200 billion on goods, services and works – around 19% of EU GDP.[77] ClientEarth believes that these examples can be replicated and extended to a wider range of low carbon technologies and energy efficient products and services to be tied to more stringent public procurement criteria. Green Public Procurement criteria can in this way be strengthened and have a binding legal presence in a wider array of EU legislation.

Aligning state aid rules to EU climate objectives

In line with the recent Commission Consultation Paper on 'Environmental and Energy Aid Guidelines',[78] ClientEarth believes that the EU should ensure that State aid is extended to technologies which support energy savings and energy production from renewable energy resources. As the Communication emphasises it may be useful to create a cross border deployment of state aid to avoid protectionism and to help with the development of the Internal Energy Market. Furthermore, certain products and services beneficial to the environment could be exempt from environmental taxes and therefore free up capital for their development.

In this context, it needs to be highlighted that the establishment of the competition rules necessary for the functioning of the common market, in accordance with Art. 3(1) of the Treaty on the Functioning of the European Union, is the sole competence of the European Union, and the acceptance of state aid is also subject only to the approval by the European Commission. The Commission has a very powerful instrument for the implementation of competition policy. Therefore the Commission should use this very powerful tool it has at its disposal to devise ambitious State aid rules for the environment and energy, having in mind the polluter pays principle and the integration principle in order to best promote environmental protection while maintaining an emphasis on the completion of the internal energy market. This can be achieved, as the Consultation Paper Guidelines 2013 mention, through state aid of immature technologies such as smart grids, in order to allow for the most optimal integration of renewable energy into energy grids. At the same time, efforts must be made to allow for the cross-border deployment of state-aid through common mechanisms to encourage the deployment of renewable energy production where it is most efficient. The issue of cross-border deployment should be a key issue within the State aid guidelines as it is an obvious instance of market-failure due to

[76] Chapter 6 of EED Guidebook: http://www.eedguidebook.eu/public-procurement.html.
[77] European Commission Staff Working Paper, *'Impact assessment accompanying the document',* Proposal for a Directive of the European Parliament and of the Council on Public Procurement and the Proposal for a Directive of the European Parliament and of the Council.

78 European Commission, Environmental and Energy Aid Guidelines 2014 - 2020 CONSULTATION PAPER.

protectionist non-economically motivated practices of State aid. Thus, the Commission should further its ideas put forward in its Consultation Paper in line with its full competences in the field of competition law in order to achieve the best possible environmental benefits from the use of state-aid as part of the climate and energy package for 2030.

ClientEarth further considers that the mistakes of the past, particularly regarding discrepancies in definitions between different Guidelines should not be repeated and there should be a stronger focus on the environment and the proper functioning of the internal energy market without any environmentally harmful State aid measures, especially energy projects from coal. Aid should not be given where it has an opposite effect to that advocated for in the EU's energy and climate policy, and it should be crucial to stop investments in new coal plants not fitted with CCS and to redirect the flow of investment towards renewable energy sources and energy efficiency. In particular, an amendment and review of the Communication from the Commission - Guidelines on Certain State aid measures in the context of the greenhouse gas emission allowance trading scheme post-2012 (SWD (2012) 130 final) (SWD (2012) 131 final) ("the Commission ETS State aid guidelines") is required.

Taking into account the principles of the Treaty and settled case law, it is clear that the new assessment criteria of State aid measures in the context of the greenhouse gas emission allowance trading scheme adopted by the Commission should be compatible with the polluter pays principle established in Article 191(2) of the TFEU and with the integration principle established in Article 11 of the TFEU. Additionally, the new criteria should be compatible with settled case law and settled Commission practice in terms of application of Article 107(3)(c) of the TFEU and take into account the general rule of auctioning of emission allowances established in Article 10(1) of the amended Directive 2003/87/EC. Any new assessment criteria ought to be consistent with settled Commission practice and set up stricter conditions (or at least no less strict) than the conditions established in the Commission Guidelines so far. To achieve this consistency, these criteria have to be based on general rules established in the Environmental Guidelines of 2008.[79] It should also be noted that the Commission adopted the Environmental Guidelines of 2008 as part of the Climate and Energy package.[80] Therefore the Environmental Guidelines constitute the most appropriate point of departure for establishing new guidelines.

One of the problematic areas of the State aid guidelines is evident when comparing the Environmental Guidelines of 2008 with the section[81] in the EU ETS State aid Guidelines on the

[79] Community Guidelines on State Aid for Environmental Protection, 2008/C 82/1, OJ C 82/1, 1.4.2008.
[80] E.Kutenicova, A.T.Seinen, *Environmental Aid,*[in:] *EU Competition Law, Volume IV, State Aid,* Claeys & Casteels 2008, p. 851.
[81] The EU ETS State Aid Guidelines cover : aid to undertakings deemed to be exposed to a significant risk of carbon leakage due to EU ETS allowance costs; to investment to highly efficient power plants; and to derogations for the electricity sector .

derogation for electricity producers from ETS obligations.[82] The following analysis highlights these discrepancies between the two current Guidelines in place which have as their effect the undermining of environmental protection and competition in the internal market:

Unfortunately, the EU ETS State aid guidelines are lowering the level of protection of the environment and competition on the energy market. Under the Environmental Guidelines of 2008 the "incentive effect" is characterized as follows: "State aid for environmental protection must result in the recipient of the aid changing its behaviour so that the level of environmental protection will be higher than if the aid had not been granted. However, investments which increase the level of environmental protection may at the same time increase revenues and/or decrease costs and thus be economically attractive in their own right. Therefore, it needs to be verified that the investment concerned would not have been undertaken without any State aid."[83] According to the EU ETS State aid guidelines "The incentive effect is deemed fulfilled for investments undertaken as from 25 June 2009".[84] The Environmental Guidelines of 2008 defining also the "necessity of aid" condition: "Investment may be necessary in order to meet mandatory Community standards. Since the company would have to comply with those standards in any event, State aid to meet mandatory Community standards that are already in force cannot be justified."[85] In the EU ETS State aid guidelines the Commission did not set up a "necessity of aid" condition in terms of aid involved in optional transitional free allowances for the modernization of electricity generation.

The "proportionality of the aid" condition under the EU ETS State aid guidelines is also established at a lower level than in the Environmental Guidelines of 2008. According to the Environmental Guidelines of 2008: "Aid is considered to be proportional only if the same result could not be achieved with less aid. In addition, proportionality may also depend on the degree of selectivity of a measure. […] In particular, the aid amount must be limited to the minimum needed to achieve the environmental protection sought. Therefore, eligible costs for investment aid are based on the notion of the extra (net) cost necessary to meet the environmental objectives. This concept implies that, in order to establish how much aid can be granted, all the economic benefits which the investment gives the company must in principle be subtracted from the additional investment costs."[86]

Following from this principle, the eligible costs under the EU ETS State aid guidelines should be limited to the extra investment costs necessary to realize CO2 reduction by "investment in retrofitting and upgrading of the infrastructure and clean technologies"[87] as compared to

[82] Commission Guidelines on certain State aid measures in the context of the greenhouse gas emission allowance trading scheme post-2012, OJ 2012 C 158/04, para 16.
[83] Community Guidelines on State Aid for Environmental Protection, 2008/C 82/1, OJ C 82/1, 1.4.2008, para 27.
[84] Commission Guidelines on certain State aid measures in the context of the greenhouse gas emission allowance trading scheme post-2012, OJ 2012 C 158/04, para 40.
[85] Community Guidelines on State Aid for Environmental Protection, 2008/C 82/1, OJ C 82/1, 1.4.2008, para 29.
[86] Community Guidelines on State Aid for Environmental Protection, 2008/C 82/1, OJ C 82/1, 1.4.2008, para 30-31.
[87] Article 10c(1) of Directive 2003/87/EC.

"business as usual" investment (scenario).[88] The Commission decided to define eligible costs in the EU ETS State aid guidelines in a more general manner as "Eligible costs must be limited to the total investment costs (tangible and intangible assets) as listed in the National Plan corresponding to the market value of free allowances granted per beneficiary, irrespective of operating costs and benefits of the corresponding installation." The aid intensity established in the EU ETS State aid guidelines is also unusually high: "Aid must not exceed 100% of the eligible costs".[89]

The European Commission guidelines on certain State aid measures in the context of the greenhouse gas emission allowance trading scheme post 2012 established rather general conditions and by extension lowered the level of protection of the environment and the competition on the electricity market. This should be changed accordingly in any future guidelines to achieve consistency between climate policy and competition policy.

Phasing out harmful subsidies

ClientEarth strongly supports the phasing out of harmful subsidies such as fossil fuel subsidies, which undermine the EU's long-term climate and energy policies and will have the effect of releasing public money for investments in energy efficiency and clean technology. To enhance the importance of this issue it is worthwhile to note that the International Energy Agency's Chief Economist, Fatih Birol has claimed that fossil fuel subsidies are "public enemy number one to sustainable development".[90] The EU should support this internationally as well as within the EU, and ensure that complementary measures to address energy poverty are introduced, as recommended above.

Alignment of EU public banks with EU climate and energy goals

ClientEarth also believes that the removal of harmful subsidies should go hand in hand with the end to the financing by the European Banks, namely the EIB and the EBRD, of energy projects run on fossil fuels. During the period 2007-2013 the EIB lent € 62 billion to the energy sector[91], of which €19 billion went to fossil fuel related projects. Likewise in the period 2006-2011, 48% of energy projects financed by the EBRD were fossil fuel related. FInance has always been noted as one of the stumbling blocks to achieving the EU's targets for a decarbonised economy, yet two of the biggest financial instruments at the EU's disposal are not being used for such a purpose.

[88] See for example para 105, para 117 of Community Guidelines on State Aid for Environmental Protection, 2008/C 82/1, OJ C 82/1, 1.4.2008.
[89] Commission Guidelines on certain State aid measures in the context of the greenhouse gas emission allowance trading scheme post-2012, OJ 2012 C 158/04, para 42.
[90] Fatih Birol at the EWEA 2013 conference: http://www.ewea.org/annual2013/press-corner/videos/
[91] CEE Bankwatch and Friends of the Earth Europe: The role of EU public banks in energy financing in Central and Eastern Europe, April 2013.

Use of the Multiannual Financial Framework

Within the 2014-2020 Multiannual Financial Framework (MFF) only 20% will be reserved for Climate Finance (low carbon or energy efficiency projects) despite the 'no-regrets' nature of these outcomes. ClientEarth believes that a much greater proportion of those funds should be allocated to projects of this nature. The largest likely outlet for this funding will be the Cohesion Policy born out of Article 174 of the EU Treaty. The Cohesion Policy is made up of 3 instruments – ERDF, Cohesion Fund and ESF. But the MFF does not specify which instrument will cover the 20% allocation, which begs the question – how will we get there? Specific funding principles must be agreed to drive investment in projects that deliver real and additional emission reductions, especially in energy efficiency. The biggest challenge will therefore be on the ground implementation of the €190 Billion earmarked for climate finance.

Public deficit accounting

ClientEarth believes that interpretations of accounting rules on public debt and deficit need to be modified so that investments in energy efficiency under energy service contracts are not necessarily counted as deficits in national and public accounts. This includes the so called 'off balance sheet' obstacle that hampers the wider use of energy performance contracting in the public sector.

3.2 How should specific measures at the EU and national level best be defined to optimise cost-efficiency of meeting climate and energy objectives?

In this regard ClientEarth would make three proposals:

- Specific measures to optimise cost-efficiency of meeting climate and energy objectives could include mainstreaming climate policy into the EU budget which will provide more funding for clean technologies and energy efficiency measures as well as removing fossil fuel subsidies which are hampering the growth of true indigenous sources of energy such as renewable and energy savings.

- ClientEarth also believes that a more explicit legal alignment of the internal energy market regime with the decarbonisation and energy efficiency objectives contained in the EU's climate and energy framework could improve the mutual traction between these parallel but intimately connected legal contexts. In effect, the IEM framework should be reviewed to ensure a more explicitly legal orientation towards meeting the EU's long-term decarbonisation and energy savings objectives. Although ClientEarth has not yet completed its own analysis of this issue, we believe that doing so could also support further optimisation of the pathway towards meeting the EU's climate and energy objectives.

- Additionally, other key instrument for energy savings by 2020 are the two product focused Directives, the Ecodesign and Energy Labelling Directives, which jointly should produce some 400 Mtoe annually energy savings in 2020. ClientEarth believes that the forthcoming revision of the Directives should be used to reinforce their consistency and maximise their complimentary push and pull effects with the overall aim of achieving as many energy savings as possible via these very influential tools. The policies from these two Directives lack dynamism and ambition and tend to 'run after the market' rather than challenge it. Furthermore it is also advisable that a market monitoring mechanism for products placed on the market using or related to energy. In fact, market monitoring at EU and national levels could provide several benefits: helping Member States assess the part of their national energy savings linked to more energy efficient appliances, avoiding overlaps between product policy and building policy and the EED, thus preventing double counting the same savings (e.g. replacement of heaters in public building could be accounted several times) and adapting regulations on appliances with much more reactivity and relevance with regard to the market evolution. Australia, for example, has a product register that eases their assessment of savings linked to products, their market surveillance work and the update of implementing measures.[92]

3.3 How can fragmentation of the internal energy market best be avoided particularly in relation to the need to encourage and mobilise investment?

ClientEarth believes that action designed to send clear signals concerning the stability and certainty of the EU energy law and regulation will make a significant contribution towards underpinning the IEM and reducing the incentive towards fragmentation. In this regard we urge the Commission to take action to strengthen oversight of the IEM process itself but also to deliver an ambitious and legally binding 2030 framework.

In terms of improved oversight of the IEM process, we urge the Commission to take the following action; namely, to:

- Deliver rigorous compliance monitoring and demonstrate a clear willingness to take immediate enforcement action where IEM regulations are not complied with in law or in practice. In particular, we urge the Commission to launch legal challenge to national

[92] http://www.energyrating.gov.au/products-themes/product-registration/; Come on Labels, ' Benefits and challenges of product databases for energy labelling related market surveillance', page 9.

action that constitutes direct or indirect restrictions on completion of the IEM and that are incompatible with EU climate goals.

- Ensure rigorous evaluation of the extent to which Member States have complied with the IEM obligation to create fully independent and powerful national energy regulators.

- Ensure transparent monitoring of the role being played by national energy regulators in compliance with the IEM project.

- Reform the highly fragmented and non-transparent arrangements for technical decision making within the IEM.

- Consider translating the current political commitment to achieve a level of interconnection into an enforceable legal target.

In addition ClientEarth believes that strong EU leadership in the design and development of climate and energy governance is vital to ensure the optimal Europeanisation of the regime. We believe that an ambitious and legally binding 2030 climate and energy framework will act as a powerful antidote to fragmentation of the IEM. A framework rooted in the rule of law will send a clear message to investors concerning the stability and certainty of the regulatory framework and thus help to unlock the infrastructure investments required. In addition the transfer of responsibility for ensuring allowance scarcity within the ETS to an independent, expert but accountable body (discussed above) will also reinforce the message to investors concerning the EU's commitment to a functioning carbon market and to ensuring a stable and consistent carbon price. The extension of ambitious and binding renewables targets to 2030 and the introduction of binding EU and national energy efficiency targets for 2020 and 2030 will also significantly support the process of completing the IEM through attracting investment in both context. In this regard harmonisation of energy efficiency calculation methods and standardisation around energy efficiency will assist in this process.

The synergies between energy efficiency and the IEM are strong and can be illustrated in a number of ways. For example, energy efficiency and other associated technologies such as smart grids allow for energy to be saved where it is most cost-efficient and therefore also transferred within the single market to where it is most in demand, ensuring the efficient functioning of the IEM. This is supported by the Commission Communication on 'making the internal energy market work'[93], which emphasises the need for Member States to adopt demand-response mechanisms, modernisation of their grids, and other methods found in the Energy Efficiency Directive in order to best implement the IEM. Moreover, the Impact Assessment in the Energy Roadmap 2050 explicitly states[94] that a bigger EU market, under the

[93] Making the internal energy market work, COM (2012) 663
[94] Energy Roadmap 2050 (SEC(2011) 1565) page 24

IEM, will encourage the development and deployment of innovative products such as energy efficiency. Therefore not only does energy efficiency support the IEM delivery but IEM delivery supports energy efficiency measures as it offers a more certain investment environment and a much larger market for EE with potentially larger gains for investors.

The relationship between the two policies can also work in the other direction with the IEM helping to further energy efficiency measures. It should be noted that the IEM Communication has committed the Commission within 2013 to further analyse how the IEM can contribute to improving energy efficiency[95]. Thus both policies act as mutually reinforcing instruments. In addition, ClientEarth believes that the subsidies or regulations aimed at lowering the overall energy prices tend to reduce the incentives for energy-efficient behaviour, do not specifically target the most in need, and can distort competition. While assistance to vulnerable consumers by financial measures may be part of social policy, assistance with energy efficiency improvements represents a cost-effective form of assistance. Therefore by removing protectionist subsidies and therefore promoting the Internal Energy Market, more energy efficiency measures would be deployed[96].

3.4 Which measures could be envisaged to make further energy savings most cost-effectively?

Energy savings are already the most cost-effective choice our society has for all sectors and levels of the economy. The IEA Report published in May 2013[97] outlined that energy savings are one of the most important tools in keeping the world under the 2°C scenario using existing technologies. The most direct route to achieve energy savings is an EU target that is binding at EU and national level, as discussed above.

Europe is in need of a strong regulatory framework with binding targets for the three major policies of GHG, energy savings and renewable energy, in order to attract investment. Targets are what drive momentum and this is evident from the success of renewable energy sources which have captured 12.5% of the European market with year-on-year growth with several Member States projected to surpass their 2020 targets as the industry has become so competitive. It is true that feed-in tariffs and incentives were provided for renewable energy sources but this was necessary as they were new and immature technologies and in comparison to the fossil fuel subsidies (which are still in place for so called 'more economical conventional fuels') these subsidies were minor.

[95] Making the internal energy market work, COM (2012) 663 page 20

[96] Making the internal energy market work, COM (2012) 663 page 11

[97] International Energy Agency World Energy Outlook Special Report, 'Redrawing the Energy-Climate Map' 2013

More options for financing are needed and we must remove the remaining non-market barriers to energy efficiency. The Energy Efficiency Directive is a good first step but a strong implementation is required. The Coalition for Energy Savings has produced a Guidebook for the strong implementation of the Directive which provides invaluable expertise and advice on achieving the most savings from the Directive.[98]

4 COMPETITIVENESS & SECURITY OF SUPPLY

4.1 Which elements of the framework for climate and energy policies could be strengthened to better promote job creation, growth and competitiveness?

Energy efficiency is one of the central elements deciding competitiveness. It can help in overcoming the EU's crises: the economic and financial crisis, the climate crisis and the unemployment crisis, by boosting competitiveness, creating jobs and protecting the environment.

Commitment to energy efficiency also aids the development of European industry to support this commitment with the development of new products and services- this in turn leads to innovation and growth of industries, creation of new jobs and economic growth.

Several studies have pointed out the job figures to be created if Europe pursues energy efficiency policies. For example, it has been estimated that for every € 1 million spent on energy efficiency measures, apart from the economic, health and environmental benefits, 17 jobs are created as a further 'plus' in the buildings sector.[99] In addition, the Commission estimates roughly 400,000 net new jobs will be created if the EU meets its 2020 energy savings target.100 Energy efficiency is the economic pillar of climate and energy policies.

Along with the promotion of renewable energy sources, the biggest indigenous energy sources of the EU, energy efficiency helps to reduce costs, create jobs, enhance technological innovation and appropriate skills which can re-invigorate the market and lead to a third industrial revolution which can re-establish Europe as an exporting economy of clean technologies.

[98] http://energycoalition.eu/guidebook-strong-implementation-0
[99] Ürge-Vorsatz *et al.*, 2010.
[100] EuropeanCommission:http://ec.europa.eu/energy/efficiency/eed/doc/2011_directive/sec_2011_0779_impact_assessment.pdf

4.2 What are the specific drivers in observed trends in energy costs and to what extent can the EU influence them?

The EU has very limited powers to influence energy prices but significant power to reduce costs. Energy prices are mainly driven by taxation and global energy markets, while energy costs are driven by demand. Energy efficiency can reduce demand and therefore costs, and is also a shared competence of the EU. ClientEarth strongly believes that improved energy efficiency can more than compensate for rising energy prices.

The same goes for renewable energy sources, which may initially come at a higher price, but dramatically reduce the costs in the long term as no fuel is required and Europe is sheltered from rising fossil fuel prices.

4.3 How should uncertainty about efforts and the level of commitments that other developed countries and economically important developing nations will make in the on-going international negotiations be taken into account?

EU must lead the way and in best interests to reap the early-mover advantages of advanced clean tech. It is in our interest to pursue these policies regardless of what other 'important developing nations' do. However the EU is no longer the only developed country to do so as other regions are adopting ambitious climate policies at a fast rate and will also reap the benefits if Europe does not take bold action. The EU needs a strong policy framework prior to the 2015 UN Conference on Climate Change in order to be able to continue its traditional role of leading the way in climate policies and therefore convince others to do so.

For example it may be wise to also take lessons from other countries or regions, such as the ETS system in place in several North-Easter States of the USA, where revenues from the sale of allowances are reinvested in energy efficiency measures, therefore creating a cycle of sound energy policies.

4.4 How to increase regulatory certainty for business while building in flexibility to adapt to changing circumstances (e.g. progress in international climate negotiations and changes in energy markets)?

A binding energy savings target would provide certainty for business to invest in energy efficiency and saving. In addition energy efficiency and savings would make businesses more resistant to changes within the energy market, for example increased prices. The target would

also encourage EU industry to develop capacity to produce technology and services that can then be exported to help other countries meet their obligations.

In general a swift and ambitious agreement on 2030 targets is the best way to build market certainty. But any modelling must take in lessons from pre-2020, we need to build in flexibility, review and adjustment mechanisms into the climate & energy package in order to adapt to changing circumstances such as financial crises etc.

4.5 How can the EU increase the innovation capacity of manufacturing industry? Is there a role for the revenues from the auctioning of allowances?

Providing investor certainty and strengthening deployment of energy savings and efficiency services and technologies in Europe through having a target for energy savings would increase innovation capacity in Europe. Member States should at least earmark significant parts of the revenues resulting from the auctioning of ETS allowances to energy efficiency. In particular, part of these revenues could contribute to the Energy Efficiency National Funds that Member States may establish under Article 20 of the Energy Efficiency Directive. These measures will lead to bigger R&D budgets as the relevant industry grows. Furthermore, State aid in line with the latest Energy and Environmental State Aid Guidelines could be given to such innovative technologies that are not yet mature through direct aid or indirect tax incentives in order to help develop innovation in industries.

4.6 How can the EU best exploit the development of indigenous conventional and unconventional energy sources within the EU to contribute to reduced energy prices and import dependency?

The EU's largest source of indigenous energy is the energy savings it can create as well as its renewable energy sources. As an example, the Commission's contribution to the European Council of 22 May recognises that "Meeting the EU's 20% EE target by 2020 means saving the equivalent of 1.000 coal power plants or 500.000 wind turbines".

Taken together, energy savings and renewable energy are the only tools able to allow for Europe's transition to a carbon-neutral energy system which in turn means an end (or a significant decrease) to import dependency.

Proper understanding of the link between the development of indigenous conventional and unconventional energy sources within the EU and reduced energy prices and import dependency, requires discussing separately particular elements: elements of energy price; and

legal framework for the development of indigenous energy sources, with a special focus towards shale gas; import dependency; energy subsidies.

To be able to determine whether indigenous energy sources can bring any contribution to reduced energy prices it shall be established what are the basic elements of energy prices and whether they have a foothold in EU law.

Foremost argument arises out of the EU primary law, specified by the secondary law. If the European Union according to Art. 3 Par 3 TEU works for the sustainable development of Europe based on inter alia balanced economic growth and high level of protection and improvement of the quality of the environment, then it is 'desirable that energy prices reflect external costs of energy production and consumption, including, as appropriate environmental, social and health care costs' (Point 26 of the Preamble to the 2nd Renewables Directive). It's no surprise that it is Res Directive which distinguishes throughout internal and external costs, as only Renewables to the broadest extend cover both internal and above all external costs.

Under the term of conventional and unconventional energy sources are fossil fuels to be understood. To different extent, but generally those energy sources do not include external costs of pollution. An attempt to undertake a general approach that reduced energy prices might be achieved through basing on fossil fuels leads directly to generating external costs, which will not be directly paid by the end users of energy, but rather by individuals directly affected and indirectly (mostly) by the taxpayers in Member States.

What's more, although indigenous conventional and unconventional energy sources could provide appropriate supply of primary energy sources that would be cheaper than imported supplies, but this leads only to further increase of external costs of energy in the EU. Namely, exploration and extraction of indigenous energy sources in the EU generates external costs arising from exploration and extraction itself.

One of the foremost aspects by considering development of indigenous energy sources is securing approximate and high standards for the exploration and extraction of them. Recent new developments of extensive hydrocarbons extraction from unconventional sources (mostly shale gas, tight gas and shale oil) in U.S. and EU-wide debate on fracking reflect a need to research status of current and planned EU legal framework.

The climate impacts of shale gas and the implications of European development of shale gas are as yet unclear. Further assessments must be undertaken and integrated with scenarios for decarbonisation to 2050 and the overall GHG reduction goal. In particular, fugitive emissions of methane must be counted and controlled through appropriate abatement technology (applicable from exploration stage).

As a good case study example is Poland. Development of the shale gas exploration (mostly shale gas but also tight gas and shale oil) in Poland is coming along with changes in national legislative framework that shall make exploration of unconventional hydrocarbons much easier and also provide full implementation of directive 94/22/EC of the European Parliament and of the Council of 30 May 1994 on the conditions for granting and using authorisations for the prospection, exploration and production of hydrocarbons. But, during the exploration and extraction of unconventional hydrocarbons different areas of EU environmental law come into play, as shale gas exploration and extraction is being regulated in a horizontal manner. Throughout the whole process i.a. following issues are being recognized as most vulnerable: impacts on ground water and level of overall air emissions. Meanwhile, Poland has been brought on the 21st February 2013 to the Court by the Commission for failing to transpose European Water Framework Directive correctly. Due to the press relase the Commission is particularly concerned about the absence of Annex II, which outlines the characterisation system for surface waters and groundwater, and about omissions in the transposition of Annex III, which should provide specifications and reference points for river basin district analysis, reviews of the environmental impact of human activities on water, and the economic analysis of water use. By those shortages it's to establish that the required EU standard is being applied. Similarly Poland encounters problems with implementation of CAFE directive.

Those two basic examples indicate that there is a great need for assuring proper transposition of different areas of EU legislation in Member States and providing their enforcement, so that the national legal framework would provide sufficient standards for conducting exploration and extraction of hydrocarbons from unconventional resources.

Because of horizontal legal framework that regulates unconventional (and conventional) hydrocarbons exploration within the EU law, it's vital to provide in first place a review on transposition, implementation and effectiveness of the directives. After conducting of this study, an appropriate effort should be given to securing proper transposition and implementation in those Member States within the areas that were highlighted by this study.

In parallel to ensuring effective implementation is provided by the Member States, a separate review of the existing legislation shall be undertaken to establish whether there are loopholes in the current EU legislation that would not provide sufficient environmental standards for the exploration and extraction of the hydrocarbons from unconventional sources.

Horizontality of the regulation only proves that by securing effective enforcement of all regulations, approximate standard of environmental protection might be established. Creating a separate directive for unconventional hydrocarbons is thus only then advisable when the current legal framework is not able to ensure appropriate and comprehensive environment protection.

Only after bringing this described process to the end, it could be established that external costs that arise in the extraction process would be in a broader extent included in the end price for this energy source.

American experiences show that the prices for natural gas fell down rapidly, what led to reduced energy prices. The indirect comparison stated in the wording of the question constitutes no actual scenario for the EU. This is because natural gas extracted in the United States from unconventional sources obtained twofold subsidies: firstly through exemptions from observing environmental laws, secondly through direct financial subsidies. American extractions tend not to take into account external costs of extraction process, as the Energy Policy Act 2005 exempted fracking fluid from a number of federal environmental regulations and contained a number of tax incentives and loan guarantees, which can only be qualified as public subsidies. This shall not be the case in the European Union, as the environmental protection standard having application to extraction of unconventional hydrocarbons shall be EU-wide uniform and secondly regulations on state aid provide a general ban for subsidizing energy production. However, this shall not be the case by Renewables, as due to the directive 2009/28/WE: 'Public support is necessary to reach the Community's objectives with regard to the expansion of electricity produced from renewable energy sources, in particular for as long as electricity prices in the internal market do not reflect the full environmental and social costs and benefits of energy sources used'.

Dependency of the European Union on energy import is a serious challenge. This is above all an effect of the dependency upon fossil fuels. Thus even increase of energy coming from indigenous sources will lead straight towards increasing dependency on fossil fuels and rather indigenous sources will not be able to cover domestic usage.

Thus, to be able to establish whether energy from indigenous conventional and especially unconventional sources can contribute to reduced energy prices, first of all uniform environmental standards for exploration and extraction of hydrocarbons have to be secured. This activity lies within the competences of the EU and it shall be undertaken. But ClientEarth's opinion is that reduced energy prices were achieved by increasing external costs.

That's why for the European Union the only indigenous energy sources that can contribute towards reducing energy prices are renewable energy sources, supporter with energy savings and increasing energy efficiency.

4.7 How can the EU best improve security of energy supply internally by ensuring the full and effective functioning of the internal energy market (e.g. through the development of necessary interconnections), and externally by diversifying energy supply routes?

While diversification of energy supply is inherently a good thing for Europe, as it has been evidenced from the ongoing investments regarding the 'Southern corridor', it must be emphasised that after reviewing these massive investments, they may have been better utilised for energy efficiency measures and for measures to develop and deploy our own indigenous renewable energy. Therefore, once the expensive 'Southern corridor' is complete, as long as the EU observes and fulfils its climate objective for 2030, security of supply will be met by all the above mentioned measures and should no longer pose a problem for Europe.

The best way of increasing security of supply is first to reduce demand along the whole energy supply chain, which is possible by deploying an ambitious energy savings target that realises the available cost-effective potential. This will also help determine the necessary size and optimal structure of the energy generation, transmission and distribution system.

Additionally, the ongoing struggle to achieve open and non-discriminatory access to transmission infrastructure creates an additional challenge to future sustainable energy supply. Improvements to the current regulatory framework need to be made to better incentivise new entrants and to ensure fair competition. Barriers for renewable energy producers to participate fully in a competitive market must be removed holding transmission system operators more directly accountable through strict reporting measures and more concrete targets and incentives for compliance.

5 Capacity and Distributional Aspects

5.1 How should the new framework ensure an equitable distribution of effort among Member States? What concrete steps can be taken to reflect their different abilities to implement climate and energy measures?

Further to our comments on the development of an economy wide approach to GHG emission reduction within the 2030 framework, ClientEarth can make the following responses to the questions raised by the Commission concerning capacity and distributional aspects of our proposals in this context:

- A variety of burden sharing models exist. Some have potential to lower the cost of necessary ambition at EU level.

  Accepting that targets will need to be distributed at a national level may require a fresh look at Member State splits in achieving a 2030 GHG targets. In addition to raising ambition to make non-ETS targets meaningful and relevant for 2030, unlocking the

higher end of Effort Sharing potential may also mean looking at different ways of distributing targets.

The current model is based primarily on ability to pay - measured as GDP per capita. It is important to consider alternative options which may lower overall cost at the EU level. A recent IEEP analysis evaluated different scenarios to get to a higher target (30%) for 2020. Two alternative scenarios resulting in cost savings compared to the current scenario were presented. The first alternative scenario distributed targets based on the geography of most cost efficient mitigation potential which had 7 Member States alone (Bulgaria, Estonia, Latvia, Lithuania, Poland, Romania and Malta) take on the higher target range. The second scenario allocated higher targets to those MS with higher proportion of projected emissions in 2020 (Latvia, Lithuania, Poland and Romania). If these alternative burden sharing splits were to be applied, Europe could save 800 Million Euros and 900 Million Euros, respectively (compared to continuing with the GDP per capita split). Higher targets in these countries means greater investment in the energy efficiency potential (for example) so these distribution scenarios would also lead to reduced fuel imports through increased investments in the countries with higher targets. In this sense, the burden becomes equitable. But, limited access to capital is the main obstacle to unlocking the mitigation potential at a large scale. Financing options like those discussed in above sections would have to play an integral role in such cost effective burden sharing splits.

5.2 Are new financing instruments or arrangements required to support the new 2030 framework?

Apart from the new financing instruments that will necessarily enter the market once the robust and certain regulatory framework implementing the abovementioned climate and energy policies, is implemented, there are a few other regulatory options that could spur new financing instruments to support the new 2030 framework. As already discussed in the context of our comments on 'Instruments' ClientEarth believes the following financing instruments could be re-oriented or better deployed to support the new 2030 framework:

- Public procurement – The 'green' aspect of public procurement could be strengthened including translating the GPP criteria into binding provisions within Directives in order to oblige all public bodies, central, regional and local to purchase products and services with low carbon or energy savings impacts. This will further develop the market of low carbon and energy savings technology.

- State aid - In line with the recent Commission Consultation Paper on 'Environmental and Energy Aid Guidelines' the EU should ensure that State Aid is extended to technologies

which support a more efficient energy production and which support energy production from renewable energy resources which are not yet mature (e.g. smart grids; super grids and storage and fuel cell technology) and encourage the use of General Block Exemption Regulations in this field. As the Communication emphasises it may be useful to create a cross border deployment of state aid to avoid protectionism and to help with the development of the Internal Energy Market. Alternatively, instead of direct state aid, certain products and services beneficial to the environment could be exempt from environmental taxes and therefore free up capital for their development.

- Phasing out harmful subsidies such as fossil fuel subsidies therefore freeing up public money for investments in energy efficiency and clean technology

- Ensure a higher proportion of funds from the Multiannual Financial Framework are earmarked for energy efficiency and other low carbon technologies.

- Public deficit accounting - Interpretations of accounting rules on public debt and deficit need to be modified so that investments in energy efficiency under energy service contracts are not necessarily counted as deficits in national and public accounts. This includes the so called 'off balance sheet' obstacle that hampers the wider use of energy performance contracting in the public sector.

- New and/or improved financing mechanisms are needed to help unlock reductions in Effort Sharing sectors. The Effort Sharing Decision contains a number of untapped opportunities for innovative financing solutions.

ClientEarth's views in this regard have already been outlined above in section 3, Instruments.

ANNEX

NON-COMPLIANCE IN POLAND

The following directives have not been transposed into Polish law:

- **DIRECTIVE 2009/31/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 April 2009** on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006 - the date for implementation of this directive passed on 25 June 2011. In April 2013 the Polish government adopted amendments to the Polish geological and mining law which are intended to transpose the directive into Polish law. These amendments apply, however, only to demonstrative undertakings mentioned in EC decision no. 2010/670/EU laying down criteria and measures for the financing of commercial demonstration projects that aim at the environmentally safe capture and geological storage of CO2 as well as demonstration projects of innovative renewable energy technologies under the scheme for greenhouse gas emission allowance trading within the Community established by Directive 2003/87/EC of the European Parliament and of the Council. These amendments still need to be passed by parliament, signed into law and promulgated. Their adoption by the government is only the very beginning of a long legislative process.

- **DIRECTIVE 2009/73/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 July 2009** concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC- the date for implementation of this directive passed on 3 March 2011.

- **DIRECTIVE 2009/72/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC** - the date for implementation of this directive passed on 3 March 2011.

- **DIRECTIVE 2010/31/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 May 2010** on the energy performance of buildings the date for implementation of this directive passed on 9 July 2012. The aforesaid directive 2010/31/EU is crucial for energy efficiency policy in Poland, as the buildings sector has a great energy savings

potential. Additionally, non-implementation of this directive may result in limiting use of EU funds for investments aimed at improving energy efficiency.

- **DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010** on industrial emissions (integrated pollution prevention and control) - the date for implementation of this directive passed on 7 January 2013;

The following directive has been transposed only partially into Polish law:

- **DIRECTIVE 94/22/EC on the conditions for granting and using authorizations for the prospection, exploration and production of hydrocarbons; date of implementation of this directive passed on 1 May 2004**, subject to infringement proceeding: Case C-569/10: Action brought on 3 December 2010 — European Commission v Republic of Poland.

- **DIRECTIVE 2000/60/EC establishing a framework for Community action in the field of water policy; date of implementation of this directive passed on 1 May 2004,** subject to infringement proceeding - Commission referred Poland to the Court on the 21st February 2013.

- **DIRECTIVE 2009/28/EC on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC; date of implementation of this directive passed on 5 December 2010,** subject to infringement proceeding - Commission referred Poland to the Court on the 21st March 2013. Priority access or guaranteed access to the grid-system of electricity produced from renewable energy sources (Art. 16 Par. 2 letter b of the Directive) is currently not provided. What is most important is that the national RES target (because of the malfunctioning national measures), is unlikely to be met in 2020. At the same time, because there is no EU target set within RES beyond 2020, national measures are only to be valid until the national target is met and later on support will be withdrawn. These experiences make clear the pressing need for the European Commission to work with Member States on transposition of the 2030 RES Directive, so that it will achieve the required result. At the same time, problems with implementation of the current Directive show and the setting a national target demonstrate the importance of establishing a binding target for the period of beyond 2020, as this will be an additional incentive for the countries that fall behind and potentially squander efforts to support EU climate policy.

- **DIRECTIVE 2009/29/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 April 2009 amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community - the date of implementation of this directive passed on 31 December 2012.** Until 17th of June 2013 the basic principles of Directive 2003/87/EC as amended by Directive 2009/29/EC have not been transposed into Polish law, in particular the rules for the sale of emission allowances at the auction. Only selected elements of Article 10c of Directive 2003/87/EC have been transposed into the Polish law to the extent that would allow the Polish government to notify to the European Commission the application referred to in Article 10c paragraph 5 of Directive 2003/87/EC as amended by Directive 2009/29/EC, i.e. derogation from the principle of selling the allowances at auction. ClientEarth and others NGOs have submitted to the European Commission the complaint concerning the transposition of Directive 2003/87/EC as amended by Directive 2009/29/EC on 8th July 2011. This complaint has been registered under the reference number CHAP(2011)02304.

Notes:

- Information concerning pending infringement proceedings can be found here: http://ec.europa.eu/environment/legal/law/press_en.htm

- Information concerning pending infringement proceedings on energy directives can be found: http://ec.europa.eu/energy/infringements/doc/infringements_energy.pdf

- A report drawn up by the Polish office of the international law firm SALANS concerning the scope of amendments required in Polish law to implement the DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions can be found here: http://www.ptez.com.pl/_upload/file/Zad_%202%20%20Raport_Przegl%C4%85d%20prawodawstwa%20krajowego%20w%20celu%20wdro%C5%BCenia%20Dyrektywy%20201075UE.pdf

- A memorandum dated 12 December 2011, drawn up by the Polish ministry of the environment, concerning the lack of implementation of certain environmental directives can be found here:http://legislacja.rcl.gov.pl/docs//2/8117/18116/18520/dokument18977.pdf?lastUpdateDay=13.04.13&lastUpdateHour=18%3A47&userLogged=false&date=sobota%2C+13+kwiecie%C5%84+2013

- The following entities can be contacted should any questions arise concerning the implementation of the above-mentioned directives and are most likely to provide relevant information:

    - Ministry of the Environment

      http://www.mos.gov.pl/artykul/243_kontakty/50_ministerstwo_srodowiska.html

    - Government Legislation Centre

      http://www.rcl.gov.pl/index.php?option=com_content&view=article&id=48&Itemid=28

REMAINING INPUTS FROM ANDREAS

1.EE-IEM link “Andreas – could you check the European Climate Foundation Roadmaps analysis for the specific explanation of why energy efficiency supports IEM delivery please. It would be useful to cite it specifically here” (Comment J58).:

The subsidies or regulations aimed at lowering the overall energy prices tend to reduce the incentives for energy-efficient behaviour, do not specifically target the most in need, and can distort competition. While assistance to vulnerable consumers by financial measures may be part of social policy, assistance with energy efficiency improvements represents a cost-effective form of assistance. Therefore by removing protectionist subsidies and therefore promoting the Internal Energy Market, more energy efficiency measures would be deployed. **(page 11, Making the internal energy market work, COM (2012) 663)**

Another point highlighting the synergies between EE and the IEM is that with EE and associated technologies such as smart grids, energy can be saved where it is most cost-efficient and subsequently transferred within the single market to where it is most in demand, ensuring the efficient running of the IEM.

The **COM (2012) 663** really emphasises the need for Member States to adopt demand-response mechanisms, modernisation of their grids, and other methods found in the Energy Efficiency Directive in order to best implement the internal energy market.

(FYI- within the Communication on the IEM, as an Action Plan it calls on the Commission in 2013 to “Analyse how the internal energy market can contribute to improving energy efficiency” so it is still a work in progress I presume)

The Roadmaps to Reality Briefing note for discussion, Theme3: wholesale power markets (page 11) states how energy efficiency must be taken into account when designing energy infrastructure, and therefore it is one of the concerns when designing the internal energy market.

Energy Roadmap 2050 (SEC(2011) 1565) page 24: impact assessment explicitly states that a bigger EU market, under the IEM, will encourage the development and deployment of innovative products such as energy efficiency. Therefore not only does EE support the IEM delivery but IEM delivery supports EE measures as it offers a more certain investment environment and a much larger market for EE with potentially larger gains for investors.

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