

CA-RES

Executive Summary



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Foreword

Back in 2009, when the Heads of all EU Member States committed themselves to intervening in national energy markets with the aim of delivering an overall target of 20% renewable energy in the EU’s final energy consumption by 2020, few could have anticipated the very difficult financial context in which these commitments would have to be delivered. Moreover, at that time, few could have predicted the dramatic decreases in renewable energy technology costs, which have taken place over the past four years, and the impacts which these cost reductions have had on support schemes and on investor confidence.

The renewable energy directive provides a legal framework within which each Member State must work to deliver on its renewable energy commitment, but it leaves open a wide range of policy options for how exactly to deliver those commitments. Since each EU Member State has a different mix of renewable energy resources, and the flows of electricity and renewable fuels across national borders are restricted by the existing infrastructure, there is a big potential for minimising the costs and for optimising the benefits of renewable energies through cooperation between MS and through the sharing of best practices.

In view of the many different challenges faced by the Member States in implementing the renewable energy directive, the European Commission decided in 2010 to use the Intelligent Energy Europe programme to establish a concerted action (CA-RES), with the aim of helping Member States to work together on implementing the renewable energy directive as cost effectively as possible and in ways which would maximise the benefits for the EU in terms of high quality job creation and the security of energy supplies, as well as greenhouse gas reductions.

CA-RES provides a confidential forum in which officials from responsible national administrations can meet and share their experiences of implementing the renewable energy directive. Its participants come from a diverse mix of competent authorities including energy, economy, and agricultural Ministries, regulators, TSOs, national energy agencies, and statistical offices. CA-RES complements on the one hand the official meetings of Member States in European Council working groups, which focus on the development and adoption of new EU policies / legislation, and on the other hand the work of national, regional and local stakeholders who work together for example through collaborative projects, which are co-funded by the Intelligent Energy Europe programme.

CA-RES has proven to be a valuable forum for examining and sharing information and for learning from different experiences across the EU Member States in a spirit of open and mutual

30 Countries taking up the challenge: A CONCERTed Action

cooperation. The reports of the ten CA-RES Working Groups highlight the progress achieved, and provide some very interesting examples of the exchanges and learning processes involved. They address each of the main areas covered in the Directive: support schemes and cooperation mechanisms, calculation methodologies, authorisation procedures, buildings and district heating systems, training and information, electricity networks, biogas, biomass mobilisation, renewables in transport, and guarantees of origin.

Of course, it would make no sense to promote the supply of renewable energy without ensuring that it is efficiently used. At EU level, the policy and regulatory frameworks for ensuring the efficient use of energy are laid out in the energy efficiency directive and in the directive on the energy performance of buildings. Concerted actions have also been established through the Intelligent Energy Europe programme to address the implementation of each of these directives. The work of the three concerted actions is coordinated through regular meetings of their coordinators and through joint meetings of participants, where appropriate, with the aim of maximising the potential benefits of synergies and ensuring consistency. Looking ahead, the slope of the trajectory towards the EU renewable energy target will get steeper as we approach the target date of 2020, so it must be expected that the implementation of the renewable energy directive will become even more challenging. Nevertheless, very good progress has been achieved in many Member States since the renewable energy directive was adopted, and meetings of the CA-RES have already been used to share the resulting lessons learned.

As a result of the EU's strong political commitment (which is encapsulated in the renewable energy directive), the markets for renewable energy in the EU and worldwide have continued to grow more rapidly than those in other economic sectors throughout the period of the financial crisis. If those officials in national administrations, who are responsible for implementing the renewable energy directive, continue in the future to work together as closely as they have done during the past three years in the CA-RES, then the EU can look forward to further growth of its renewable energy businesses and to more high quality green jobs, as well as to more secure energy supplies and lower greenhouse gas emissions.



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Facts & Figures

In its drive to develop a sustainable and competitive economic region, to mitigate greenhouse gas emissions and to enhance energy security, the European Union has at an early stage recognized the crucial role of renewable energy sources. The adoption of the 1997 White Paper laid the foundation of EU renewable energy policy, although the development of renewable energy was only promoted through indicative targets for the electricity and transport sectors until 2008. The limited and fragmented growth of renewable energy in this period prompted the adoption of the Renewable Energy Sources Directive 2009/28/EC, which was enacted to foster a comprehensive development of renewable energy sources throughout the European Union.

For the first time in European energy policy, the directive contained the definition of legally binding targets embedded in a comprehensive legal framework, committing the EU to deliver a 20% share of renewable energy in gross final energy consumption and a 10% share of energy from renewable sources in transport by 2020. It has also prompted a reorientation in the European infrastructure policy towards a strengthening of renewable energy growth. Today, the European renewable energy industry is at the forefront of global technology development but faces challenges like the rampant economic crisis and growing competition from rapidly developing markets.

In its 2012 communication on renewable energy, the Commission emphasised the need to advance the integration of renewable energy in the internal market and to optimise support schemes for electricity generation from renewable sources¹. The effective selection and coordination of financing instruments to support renewable energy development at national and EU level, as well as the transparent and predictable adaptation of support levels will be essential for the future development of renewable energy in Europe.

The Commission's recently published green book on climate and energy policy opened the debate on the European policy framework beyond 2020.² The experience of Member States in the implementation of the current regime, and the lessons learned throughout this process will necessarily feed into the shaping of this framework for 2030.

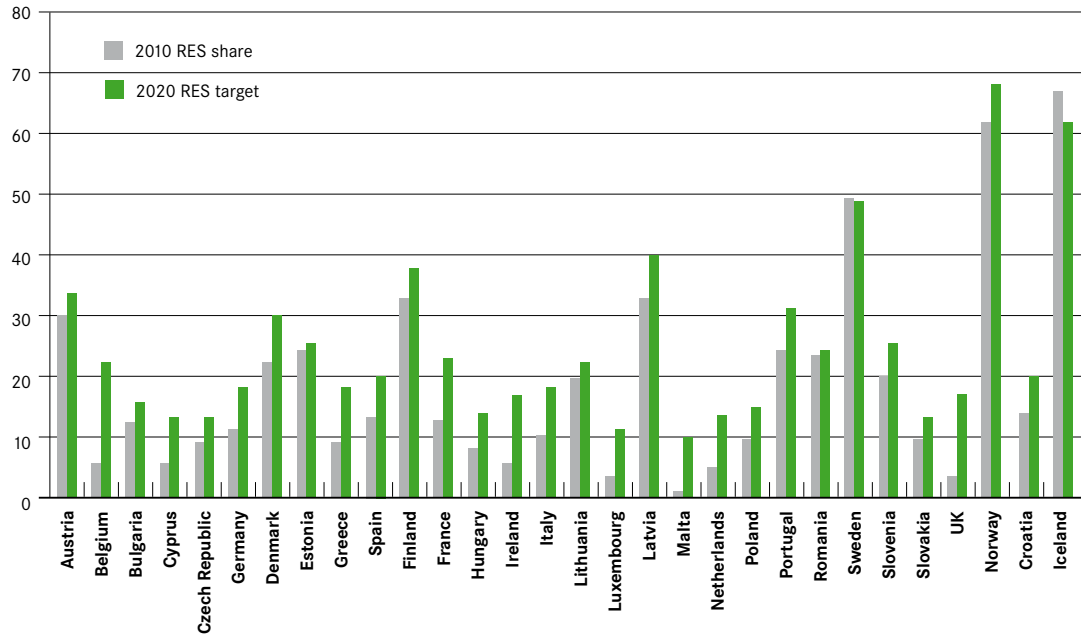
¹ Renewable Energy: a major player in the European energy market COM(2012)271;
http://ec.europa.eu/energy/renewables/doc/communication/2012/comm_en.pdf
² GREEN PAPER: A 2030 framework for climate and energy policies. Brussels, 27.3.2013 COM(2013) 169 final;
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2013:0169:FIN:EN:PDF>

The Renewable Energy Sources Directive 2009/28/EC

Directive 2009/28/EC on the promotion of the use of energy from renewable sources, which entered into force in June 2009, establishes a common framework for the use of renewable energy within the European Union. It is one of the pillars of the EU climate and energy package, providing a legislative framework for the European Union targets for greenhouse gas emission reductions. The so-called RES Directive sets binding targets for the Member States so that the EU as a whole will reach a 20% share of energy from renewable sources in gross final energy consumption by 2020 and a 10% share of renewable energy specifically in the transport sector.

As part of their obligations under the RES Directive, EU Member States in 2010 adopted and submitted National Renewable Energy Action Plans (NREAPs), setting out their national targets for the share of renewable energy consumed in electricity, heating and cooling and transport, and measures for achieving these national overall renewable energy targets. Member States' projections in their NREAPs show a bright future for renewable energy with strong growth rates up to 2020: According to these forecasts, several Member States could exceed their own targets and be able to provide surpluses for others.

According to Article 22 of the RES Directive, EU Member States submitted their first bi-annual progress reports on the advances made in the promotion and use of energy from renewable sources in 2011³. The Commission's Renewable Energy Progress Report, published in March 2013,⁴ fuels Member States' expectations by concluding that the EU as a whole, as well as 20 Member States, achieved or even overachieved their 2011/ 12 interim target for renewable energy shares already in 2010. Nonetheless, the report states that further measures will be needed at Member State level to stay on the trajectory, as it grows steeper in the coming years and barriers to renewable energy market growth still persist.



Sources: Eurostat and National Renewable Energy Action Plan of Iceland.

³ Member State bi-annual renewable energy progress reports (2011): http://ec.europa.eu/energy/renewables/reports/2011_en.htm
⁴ 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; http://ec.europa.eu/energy/renewables/reports/doc/com_2013_0175_res_en.pdf



CA-RES at a glance

In order to support Member States with the implementation of the RES Directive, the European Commission launched the Concerted Action on the RES Directive (CA-RES) through the Intelligent Energy Europe (IEE) Programme which is managed by the Executive Agency for Competitiveness and Innovation (EACI).

The Concerted Action enabled a structured dialogue on the implementation of the RES Directive between the relevant national authorities. It allowed these national authorities or their nominated representatives to enter into a dialogue, to exchange experiences and knowledge on a variety of topics covered by the RES Directive. Member States could thereby profit from each other's experience, develop common approaches and coordinate solutions wherever this is beneficial.

The Concerted Action on the RES Directive aimed at enhancing the implementation of the RES Directive by

- Creating a platform for structured dialogue and exchange of experience and best-practices between participating countries
- Facilitating cross learning at European level and thereby providing support for an effective implementation of the RES Directive
- Encouraging dialogue between participating countries on common approaches for the effective implementation of particular articles of the RES Directive



The CA-RES achieved its objectives through a series of six plenary meetings, where relevant topics were discussed over a time span of three years. Each of these meetings provided a valuable forum for structured discussions and cross learning between approximately 180 experts from the 27 EU Member States, Norway, Croatia and Iceland. This exchange of approaches, experiences and best practices in the 10 CA-RES working groups supported the implementation of the RES Directive in the participating countries.

“The CA-RES helped a lot in implementing the RES Directive by creating a platform for discussion, raising awareness about the pitfalls as well as the chances and opportunities which lie in joint approaches. It also helped in exchanging about potential ways to implement certain provisions and in disseminating best practice procedures” [CA-RES participant from NL].

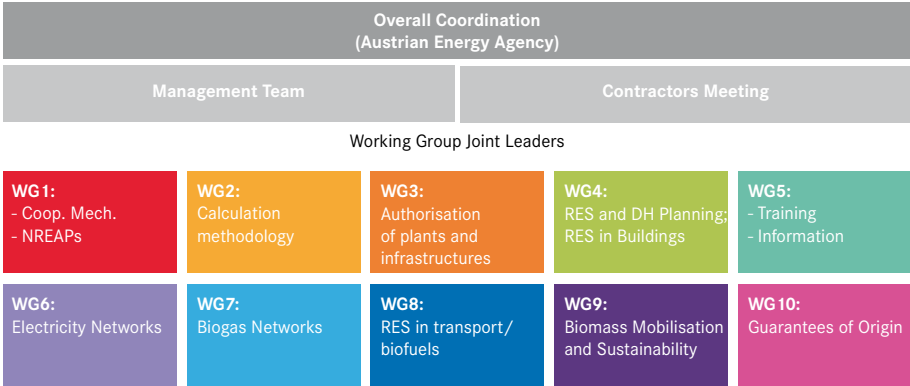
The two-day plenary meetings were structured into opening plenary session, Working Group (WG) parallel sessions and closing plenary session. After an overview of relevant policy and organisational developments in the opening plenary session, specific topics were discussed in the Working Group parallel sessions, supported by presentations on relevant country developments and activities, recent scientific findings or European policy developments. External experts from relevant projects, initiatives and institutions selectively fuelled the discussions with presentations on their results and findings, among others, on cooperation mechanisms (e.g. the IEE-supported RES4LESS project and the Nordic Testing Ground), on support schemes (e.g. the IEE supported Re-shaping project), on streamlining of administrative procedures (e.g. the IEE-supported Interpares and PV LEGAL projects and the RE-SHARE project supported by DG ENER), on the certification of installers (e.g. the IEE-supported Qualicert project), or on guarantees of origin (e.g. the IEE-supported RE-DISS project). Working Group leaders then presented the main insights from these discussions to the whole CA-RES community in the closing plenary session.

Working Groups

In line with the key implementation requirements of the RES Directive, the Concerted Action is organised in ten Working Groups:

1. Cooperation mechanisms and NREAPs (Art.3, 4, 6-11)
2. Calculation methodology (Art. 5).
3. Authorisation of plants and infrastructure (Art. 13).
4. RES and district heating, RES in buildings (Art 13, 16)
5. Training and information (Art. 14)
6. Electricity networks (Art. 16)
7. Biogas networks (Art. 16)
8. RES in transport and biofuels (Art. 17-19, 21)
9. Biomass mobilisation and sustainability (Art. 4, 17(9))
10. Guarantees of Origin (Art. 15)

The in-depth discussions in each of these Working Groups covered a wide spectrum of aspects related to the implementation of the RES Directive. These are summarised in separate Working Group Publications, which present the main discussion topics, the most important insights and the lessons learned throughout the first phase of the CA-RES.



A Platform for Dialogue & Experience Exchange Highlights of the Working Groups



1. Cooperation mechanisms and NREAPs (Art. 3, 4, 6-11)

Working Group 1 examined the conditions for a successful implementation of the cooperation mechanisms (CoopMechs) established by the RES Directive (statistical transfers, joint projects, joint support schemes). It also addressed policy instruments for the support of renewable energy and in particular specific issues regarding the improvement of support policies to comply with the indicative trajectory as laid down in the National Renewable Energy Action Plans (NREAPs).

Even though Member States called for flexibility to adapt the RES support levels to their respective national resource base and policy preferences, there is considerable scope for aligning the way RES support schemes are designed. This would enhance transparency and comparability and reduce investors' transactions costs for investing in different countries. Nonetheless all participating countries can benefit from the currently applied variety of concepts and ideas. It seems important to allow for innovation and competition of different approaches, so in this context, participating countries can learn from each other's experiences and knowledge exchange.

With increasing shares of RES in the electricity system, making them responsive to market signals will contribute substantially to render the energy system more flexible and optimise supply and demand. Overall discussions on the internal market showed that the question of how to support RES should be further aligned among participating countries, whereas the actual location of the RES installation is less of an issue to the internal energy market, provided that it can be ensured that the electricity can flow freely in the EU market while following market signals.

“Discussions in WG 1 on the methodologies for evaluating support schemes and on how to calculate the levelized costs of electricity from renewable energy sources have been incorporated into the deliberations in the Greek Ministry for Environment, Energy and Climate Change” [CA-RES participant from GR].

“The CA-RES plenary meetings are very important to see how other participating countries address the same issues which are at stake in Poland, so when reshaping its support scheme Poland will refer to the knowledge gained from other participating countries” [CA-RES participant from PL].

Exchange among WG 1 participants made clear that the different CoopMechs serve different interests: While statistical transfers can be a favorable option for short term lowest cost target compliance, joint projects can contribute to more long-term energy policy goals such as technology development, energy security and diversity. Nevertheless these benefits of joint projects seem to be closely linked to physical transfer of electricity. Furthermore, it was emphasised that joint projects can spark joint learning and joint efforts, which seem particularly valuable with regards to innovative technologies such as wind offshore or concentrated solar power (CSP).

In terms of design options for joint projects, many challenges and questions remain, such as the adequate sharing of costs and benefits among the hosting and the receiving country, adequate financing instruments and means of selecting the project. Furthermore, means to ensure the often desired equivalent flow of physical electricity have to be developed by the parties involved. Overall, WG 1 participants emphasised that joint projects require tailored solutions and balanced approaches.



2. Calculation methodology (Art. 5)

A general calculation methodology for the share of renewable energy sources in gross final energy consumption has been stipulated by the RES Directive 2009/28/EC. Working Group 2 developed a common understanding of this calculation methodology amongst participating countries. In performing its work, this Working Group maintained close cooperation with Eurostat, which is responsible for such data collection and its harmonisation at the EU level. Discussions in WG 2 focused on renewable heat from solid biomass (with a special focus on private households), solar heat, renewable heat from heat pumps, liquid biofuels for transport and on SHARES 2011 & 2012, which is a tool developed by Eurostat for calculating the applicable shares of RES.

Throughout the course of the discussions, WG2 could reach principle agreement on methodologies for how to collect data on heat from solar panels and heat pumps. As for heat from solid biomass, a “Quality standard for statistics on wood fuel consumption for households taking into account the relative importance of the 20-20-20 goals” was developed and published on the CA-RES website. Finally, the discussions within WG2 and with Eurostat helped improve the current version of SHARES in several aspects.

“Statistics on household biomass demonstrate its important contribution to final energy consumption. Within the group we agreed on well balanced, precise and practical guidelines for producing good quality of statistics that are non-binding and therefore provide enough flexibility to regard different national conditions. We now have a much better common understanding of what good quality means, which also helps in raising funds for producing national statistics” [CA-RES participant from NL].



3. Authorisation of plants and infrastructure (Art. 13)

The scope of Working Group 3 was to support participating countries with the implementation of Article 13. Therefore, administrative barriers that affect the approval, licensing and grid connection of renewable energy plants have been examined in-depth and solutions discussed. In particular, MS worked together to identify good practices which led to speeding up and streamlining the authorisation procedures and to improved coordination between the different authorities involved in the approval process

At the beginning of the concerted action, some countries were in the process of transposing Article 13 of the RES Directive, whereas others had already put in place regulatory measures aimed at simplifying authorisation procedures. These differences fuelled the exchange of information and best practices between WG 3 participants as well as the discussions on different options for implementing Article 13 and for improving current systems.

Attention was also given to factors that influence the performance of the overall permit issuing procedure. In this process, barriers with respect to the numbers of entities involved in the authorisation process, the documentation needs and the need to deliver timely and reliable information and keep an adequate transparency of the overall process were identified. The overall discussion concentrated on legislative and practical measures at both national and local level to guarantee that authorisation procedures are proportionate, streamlined, expedited and necessary. Various national measures to speed up current processes were discussed, where especially the use of online applications to favour small installations was analysed in detail. Further emphasis was put on developing possible and common solutions to enhance public acceptance of RES plants as an important aspect in the decision making process during the authorisation procedure.



4. Renewable energy in district heating and renewable energy in buildings (Art. 13, 16)

Working Group 4 covered renewable energy sources in buildings as well as renewable district heating and cooling. The group discussed the current status and barriers of renewables in buildings and district heating, non-financial measures to increase the deployment levels of renewable energy in buildings, financial support schemes and promotion measures for renewable heating and cooling, and the harmonization and development of a common approach and liaison with the CA EPBD (including building regulations).

The Working Group concluded that innovation in district heating and harmonisation with other directives will be important for RES in district heating. Public authorities are key actors for the promotion of RES in district heating and cooling, and the roles and responsibilities of national, regional and local governments (multilevel governance) can have important impacts on district heating implementation. In terms of funding for RES deployment, WG 4 concluded that consistent funding can be difficult to balance with budget certainty, and the market development of RES technologies can be affected if there are significant fluctuations in support levels: The type and longevity of fiscal support provided by MS often depends on the political landscape and decisions made by the financial ministry. This is inter alia related to the increasing importance of attracting private sector investment. In general, EU legislation on energy in buildings offers a hook for increasing the share of renewable energy. The public sector has an important role to play in leading the move to a low carbon building stock in Europe as defined in three key directives: RES Directive, EPBD and EED. Clear benefits can be reaped from taking a coordinated approach to the implementation of these three Directives at the national level.



5. Training and information (Art. 14)

Working Group 5 addressed two main topics: Information strategies and training as well as accreditation of installers of RES in buildings. Particular attention was given to accreditation and certification and to qualification schemes for installers of small-scale RES systems. The discussions in WG5 centered around developing a comprehensive common approach for accreditation of training courses/bodies and certification schemes for installers of RES among participating countries.

One of the main outcomes of WG5 was the development of the Basic Competences Tables (BCT) for installers of five RES technologies (small-scale biomass boilers and stoves, solar PV, solar thermal, shallow geothermal and heat pumps), detailing information on the respective certification systems. These BCT help participating countries to reach common ground for

certification schemes, which is comprehensive, easily implemented and commonly accepted. The Tables are now also used by the Build Up Skills initiative to help reach a harmonisation of the certification process for installers of RES systems. Furthermore, different ways to make information available to all relevant stakeholders were discussed according to Art. 14.1 and 14.2. A bottom-up approach to information production and dissemination was considered a promising way of implementing Article 14 of the RES Directive.

“Cyprus did not have a certification scheme for installers before, so the exchange of views and best practices helped a lot in the development of this scheme. Especially other countries’ experiences regarding minimum requirements and training, such as the training materials for the training of installers of RES technologies were serviceable” [CA-RES participant from CY].



6. Electricity networks (Art. 16)

Working Group 6 focused on the effective and transparent integration of RES in European electricity networks. It provided a forum for CA-RES participants to share knowledge and exchange experiences about grid integration of renewables as well as to forge opportunities for closer cooperation and coordination across national and international borders. The group identified five categories of barriers to the efficient integration of RES in electricity networks, including technical, social, economic, administrative and regulatory barriers. Discussions mainly focused on technical barriers to grid integration, although some regulatory, economic and social barriers were also touched upon as many issues contain cross-cutting elements.

WG 6 concluded from the discussions, that investment decisions in interconnectors typically have market integration as a key driver, whereas RES integration and security of supply drive investments to a lesser extent. Nonetheless, interconnectors are no single solution and must be balanced with other measures like demand side management and portfolio performance. Barriers identified in the procedures for grid access and connection often relate to a lack of coordination between authorities, the need for different permits from different authorities and thus the lack of a one-stop-shop for investors. Furthermore, smart grid regulation could be more proactive and closely related to the needs of the power system and electricity markets.



7. Biogas networks (Art. 16)

Working Group 7 addressed the conditions required for the successful integration of biogas facilities into gas networks, and also explored alternatives to gas grid injection. Participants of this group shared their know-how to identify the major legal, technical, administrative and economic barriers and jointly developed and disseminated approaches to overcome these hurdles. The topics covered in WG 7 can be grouped into the policy framework implemented in the participating countries, ranging from the regulatory rules over technical standards to existing support schemes, and into the perspectives for the future integration of biomethane in the national energy systems. This includes alternative pathways that can be used, existing barriers and possible solutions to overcome them.

Next to the wide ranging exchange of information and experience and the presentation of various examples for policy approaches, the following conclusions can be drawn from the work of WG 7:

- The framework for biomethane in the EU MS is very heterogeneous and strongly depends on the existing natural gas infrastructure and supply
- Support for biomethane is mainly provided using direct support instruments
- The direct on-site use of biogas as fuel in CHP plants is in competition with the injection of biomethane into natural gas grids
- The transport sector is a promising option for a stronger integration of biomethane in national energy systems by enabling – in the case of full exploitation of the potential – the application of economies of scale
- The possibility of flexible electricity production from biogas and biomethane used in CHP plants provides a new role for these technologies in a future energy system.



8. RES in transport and biofuels (Art. 3.4, 17-19, 21)

Working Group 8 dealt with the development of a common approach which can be used by market actors to verify compliance with the agreed sustainability criteria for biofuels. Attention was also given to developing international schemes for setting and certifying sustainability standards, to reviewing the implications of different legal systems across participating countries, and to extracting lessons from existing national and international initiatives. Another important issue of discussions in WG 8 was the double counting of advanced biofuels. In light of the Commission’s proposal on indirect land use change (ILUC), the participants discussed the availability of alternative renewable fuels and the relationship with the CO₂ emission target

in the Fuel Quality Directive. In order to better understand the subject of ILUC and its possible impact on their biofuels policy, participants also discussed the Low Indirect Impact Biofuels (LIIB) methodology.

A fragmented biofuels policy causes market distortion, so every clarification, harmonisation and collaboration will help market players operating in Europe. One of the main results of WG 8 was therefore creating awareness of the different approaches of participating countries and their impact on the European market. Since the Working Group concluded that there is no clear definition of wastes and residues in the RES Directive, activities of WG 8 led to collaboration with the Renewable Fuels Regulators Club (REFUREC). Thereupon a recommended list of double counted feedstocks was developed by REFUREC and - based on this - some participating countries of the CA-RES have started to develop a national list. Furthermore, research was established at JRC relating to the market situation of used cooking oil as double counted feedstock for biodiesel. A better understanding of the subject of ILUC resulted from the discussions on this topic. In terms of the certification of sustainability, some bilateral agreements between participating countries in some regions of Europe were developed.

“We shared a lot of valuable information in the biomass and biofuels sector, for instance about the German biomass model, how Sweden uses waste as a resource or the principles behind the sustainability criteria in the Netherlands. Also the Spanish experiences with renewables, the good and not so good practices, were not widely known abroad before the CA-RES. Through the discussions we also became aware that specific features and considerations need to have room at the regional or national level” [CA-RES participant from ES].



9. Biomass mobilisation and sustainability (Art. 4, 17(9))

Working Group 9 explored participating countries' approaches to increase the mobilisation and use of their biomass resources and to render them more efficient. The group reviewed options for enhancing biomass supply chains and for promoting efficient biomass use across the EU, as well as options for an increased international trade in biomass. Furthermore, the implementation of sustainability criteria for biomass was analysed by the group.

In terms of policies and measures for (sustainable) biomass mobilisation, a first common map of the different resource bases of the different participating countries, projections up to 2020 and also of the policies and measures in their whole value chain were drawn. A better understanding of the different approaches and concerns towards sustainability was developed and this led to a list of conclusions. When analysing biomass value chains, the group concluded that well-functioning and viable value chains are required for enhanced biomass mobilisation in the participating countries. The need for more crossover policy discussion and cooperation between policy makers in energy, agriculture and forestry was identified. Despite their benefits in terms of sustainability and diversification, only a small contribution of 2nd generation biofuels to the 2020 target of 10% RES in transport is expected by the group. Although the views on co-firing and/or full conversions of existing fossil fuel plants to biomass varied largely between CA-RES participants, the exchange of views, strategies and information was seen as very valuable. Discussions about the mobilisation of municipal waste to energy concepts have revealed large differences between participating countries in the development of their waste treatment and have enhanced the understanding of the waste legislative framework.



10. Guarantees of Origin (Art. 15)

Working Group 10 examined measures to standardise and increase the transparency of Guarantees of Origin systems across participating countries. The national implementation of Guarantees of Origin (GOs) should be such that it creates a reliable and trustworthy source of information to be used to disclose the origin of electricity to consumers. GOs issued by one participating country should be recognised by the other participating countries. In order to avoid double counting of renewable energy, the implementation of GO-systems, which prevent this effect, was discussed as well.

“Norway has had a system for GOs for many years and is a big exporter of Guarantees of Origin, so it has been valuable to understand how other participating countries implement GO systems and solve the related challenges” [CA-RES participant from NO].

“We had the set-up of a GO-system in place, but we did not have the connection of the GOs and the disclosure of the mix. Thus it was very helpful to learn about the experience of other countries, especially because Cyprus is a candidate country to participate in the AIB” [CA-RES participant from CY].

The discussions resulted in a common understanding that in order for GOs to be implemented efficiently, it would be wise to work according to a harmonised standard. The use of a joint, standardised information protocol (e.g. the usage of a common hub) to exchange GOs between national registries should be considered. CA-RES participants discussed this issue with the Association of Issuing Bodies (AIB), which signalled willingness to open up to all member states interested in cooperation, to create maximum transparency and to give participant representatives the opportunity to discuss policy issues with AIB. The work of the RE-DISS project, more specifically the need to calculate a European residual mix, has also been discussed by the CA-RES participants. The need for arranging a consistent disclosure after the end of the IEE-supported RE-DISS project was stressed by the group. One very tangible output of WG 10 is the development of a questionnaire for participating countries, which on the one hand gives guidance on good implementation of GOs and disclosure in national systems, and on the other hand helps participating countries with the decision of whether to recognise GOs issued by another participating country.

What the CA-RES has achieved

The CA-RES has established a platform for knowledge transfer, exchange of experiences and search for common ground between participating countries.

The CA-RES was a platform for knowledge transfer, exchange of experience and search for common ground between participating countries. Countries that were more advanced in the implementation of a particular aspect of the directive could transfer their experience and knowledge to other countries, which could make use of the positive and negative lessons learned. In doing so, the conditions that contributed to the successful (or not) outcome of a particular measure or programme in a given country were examined and discussed.

The CA-RES has proved valuable in exploring areas where coordination among participating countries can facilitate implementation of the RES Directive, and in helping to develop common ground across participating countries in these areas.

“The CA-RES is extremely useful for the Commission, allowing us to update Member States on current policies or changes, or just to stimulate a discussion about topics on which we need Member States’ feedback. Member States can learn from each other, but it is also useful for the Commission to listen and find out about any new directions in which the Member States are heading” [representative of the European Commission].

The CA-RES has created and consolidated a network of experts on the implementation of the RES Directive

The creation and consolidation of a network of experts on the implementation of the RES Directive has been a step-by-step process, requiring nurturing and guidance. Specifically, creating confidence among participants has been a fundamental step to enable open discussions on the challenges that the implementation of the RES Directive 2009/28/EC poses to Member States.

„The concerted action provides a valuable forum for Member States to discuss different aspects of the implementation of the RES Directive and measures how to best implement the provisions. It also enables participants to establish contacts with experts from other participating countries and to discuss relevant issues informally at the meeting and even afterwards over the phone. When discussing different options e.g. regarding support schemes, Member States provide both input to the discussions with the experiences made in their countries and at the same time learn from approaches followed in other Member States enabling them to evaluate which of these elements could also be applied in their national context. This fosters a very valuable process of coordination of support schemes among Member States“ [CA-RES participant from DE].

The CA-RES has proved valuable for filtering relevant information for participants

The concerted action operated as a “filter”, organising and prioritising information that participants should pay attention to. In this information management function, the CA-RES allowed participants to concentrate on key pieces of information that can help them overcome the challenges of implementing the RES Directive.

The CA-RES has facilitated a structured dialogue to support participating countries in their implementation of the RES directive

The RES Directive encompassed a broad range of areas related to renewable sources of energy. The CA-RES has supported participating countries in successfully addressing the challenges which arise when implementing the RES Directive and in identifying and implementing effective solutions.

The CA-RES has established a dialogue with other Concerted Actions

There are synergies between the RES Directive and other EU directives such as the Energy Performance of Buildings Directive (EPBD) and the Energy Efficiency Directive (the former Energy Services Directive). The CA-RES has maintained a fruitful dialogue with the Concerted Action on the EPBD (CA EPBD) and the Concerted Action on the EED (CA EED, formerly known as CA ESD). This dialogue has resulted in cross-learning on topics of common interest to the 3 Concerted Actions.

Outlook

The CA-RES provided a platform for experience and good-practice exchange among national bodies involved in the implementation of the RES Directive. Upon reflection at the end of a three year period, it is apparent that useful exchanges have taken place and common ground and ways forward have been found in a number of topics.

“What CA-RES participants discuss at the meetings has been of great benefit to us, not just specific to the RES Directive, but also regarding broader energy policy developments. The CA-RES did create knowledge and CA-RES participants are sharing this knowledge with other national policy makers at home, who do not participate in the process, and thereby provide input to the national policy making process” [CA-RES participant from MT].

The CA-RES has also revealed a number of remaining challenges. In order to support participating countries in addressing these challenges, a second phase of the concerted action will be launched with the support from the Intelligent Energy Europe (IEE) programme.

Working Group Leaders



WG 1:
Cooperation
mechanisms and
NREAPs

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WG 2:
Calculation
methodology

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Slovenia)



WG 3:
Authorisation
of plants and
infrastructure

Natascia Falcucci
(GSE, IT)
Agime Gerbeit
(GSE, IT)



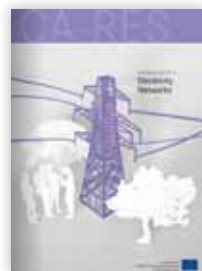
WG 4:
RES and district
heating planning;
RES in buildings

Emilie Carmichael
(EST, UK)
Maria Raytcheva
(MEET, BG)



WG 5:
Training and
information

Antonio Joyce,
(LNEG, PT)
Timo Määtä
(MOTIVA, FI)



WG 6:
Electricity
networks

José Luis Mata
(REE, ES)
Anders Kristensen,
(DEA, DK)



WG 7:
Biogas networks

Martin Baumann,
(AEA, AT),
Herbert Tretter
(AEA, AT)



WG 8:
RES in transport
and biofuels

Thorsten Wege
(MINIEM, NL)
Madis Laaniste
(MKM, EE)



WG 9:
Biomass
mobilisation

Carola Lindberg
(STEM, SE)
Ryszard Wnuk
(KAPE, PL)



WG 10:
Guarantees of
Origin

Michael Lenzen
(CertiQ, NL)

CA-RES Coordination Team

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Abbreviations

Participating countries are referred to according to their two-letter country codes as defined by ISO 3166-1 alpha-2 standard (AT – Austria, BE – Belgium, etc.)

Other abbreviations	Meaning
AIB	Association of Issuing Bodies
Art.	Article
BCT	Basic Competences Tables
CA	Concerted Action
CA-RES	Concerted Action on the Renewable Energy Directive
CA EPBD	Concerted action on the Energy Performance of Buildings Directive
CA EED	Concerted Action on the Energy Efficiency Directive
CA ESD	Concerted Action on the Energy Services Directive
CHP	Combined Heat and Power
CoopMechs	Cooperation Mechanisms
CSP	Concentrated Solar Power
DG ENER	Directorate General for Energy at the European Commission
DH	District Heating
EACI	Executive Agency for Competitiveness and Innovation
EC	European Commission
EED	Energy Efficiency Directive 2012/27/EU
EPBD	Energy Performance of Buildings Directive 2010/31/EC, 2002/91/EC
ESD	Energy Services Directive 2006/32/EC
EU	European Union
GO	Guarantees of Origin
IEE	Intelligent Energy Europe Programme
ILUC	Indirect Land Use Changes
LIIB	Low Indirect Impact Biofuels
JRC	Joint Research Centre
MS	Member States
NREAP	National Renewable Energy Action Plan
RE-DISS	IEE project Reliable Disclosure System for Europe
RES	Renewable Energy Sources
REFUREC	Renewable Fuels Regulator Club
SHARES	Calculation tool to calculate the applicable share of RES
WG	Working Group



This is a public CA-RES report

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