ARPA

Agenzia Regionale per la Prevenzione e l'Ambiente

dell'Emilia - Romagna

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Atti amministrativi

Deliberazione del Direttore Generale	n. DEL-2014-27 del 25/02/2014
Oggetto	Direzione Tecnica. Presa d'atto dell'approvazione del progetto IEE/13/599/SI2.675533 Renewables Heating and Cooling, Strategic Actions Development (RES H/C SPREAD).
Proposta	n. PDEL-2014-24 del 18/02/2014
Struttura proponente	Direzione Tecnica
Dirigente proponente	Zinoni Franco
Responsabile del procedimento	Cagnoli Paolo

Questo giorno 25 (venticinque) febbraio 2014 (duemilaquattordici), presso la sede di Via Po n. 5, in Bologna, il Direttore Generale, Prof. Stefano Tibaldi, delibera quanto segue.

Oggetto: **Direzione Tecnica. Presa d'atto dell'approvazione del progetto IEE/13/599/SI2.675533 *Renewables Heating and Cooling, Strategic Actions Development* (RES H/C SPREAD).**

PREMESSO:

- che il Programma Energia Intelligente - Europa (IEE), lanciato nel 2003 dalla Commissione europea, si propone di migliorare sia l'efficienza energetica sia le politiche per le energie rinnovabili nei paesi dell'Unione, al fine di raggiungere gli obiettivi della strategia UE 2020 (20% del taglio delle emissioni di gas a effetto serra, miglioramento del 20% dell'efficienza energetica e aumento del 20% dell'uso di energie rinnovabili);
- che gli obiettivi del Programma IEE sono di grande interesse per Arpa Emilia-Romagna;

PRESO ATTO:

- che l'accesso alle opportunità finanziarie previste dal Programma IEE avviene attraverso una selezione a seguito della presentazione di progetti in base all'emanazione di bandi;
- che la partecipazione a progetti può essere in qualità di partner capofila con compiti di coordinamento, partner, parte terza e subfornitore;
- che nel 2013 è stata avviata la procedura per la selezione di progetti di promozione e diffusione di conoscenze e informazione nell'ambito del Programma IEE;

VERIFICATO:

- che Arpa Emilia-Romagna ha partecipato al suddetto bando in qualità di partner del progetto "RES Heating and Cooling - Strategic Actions Development" acronimo RES H/C SPREAD, presentato dall'Istituto di Studi per l'Integrazione dei Sistemi (ISIS) in qualità di partner capofila;
- che il progetto ha ricevuto una valutazione positiva da parte della Comunità Europea e, successivamente alla fase di negoziazione, è stato definitivamente approvato;
- che con lettera EACI/PL/WG/ms Ares(2013) del 5/11/2013 l'Executive Agency for Competitiveness and Innovation (EACI), agente per conto della Commissione Europea, ha valutato positivamente il progetto e dato il via alla fase di negoziazione;
- che il 20/12/2013 la citata fase di negoziazione si è conclusa favorevolmente con l'approvazione del budget di progetto da parte di EACI;
- che la firma del contratto di sovvenzione (Grant Agreement n. IEE/13/599/SI2.675533) per la realizzazione del progetto RES H/C SPREAD è in corso da parte del partner capofila e della Commissione Europea;

CONSIDERATO:

- che il progetto RES H/C SPREAD ha durata pari a 30 mesi a decorrere dal 1° marzo

2014;

- che l'obiettivo principale del progetto RES H/C SPREAD è l'analisi delle migliori pratiche di utilizzo delle energie rinnovabili per il riscaldamento e raffrescamento (Heating and Cooling - H/C) al fine di rafforzarne le potenzialità di sviluppo regionali (per cogenerazione, teleriscaldamento, riscaldamento e raffrescamento degli edifici), come si evince dall'Allegato n. 1, che descrive in dettaglio tutte le attività da svolgere nell'ambito del progetto;
- che il CTR Energia e Valutazioni Ambientali Complesse parteciperà, in particolare, alla realizzazione di:
  - un'analisi delle migliori pratiche a livello regionale;
  - un "Comitato di governance" per coinvolgere i principali stakeholder a livello regionale (e nazionale);
  - un'analisi della sinergia dei Piani d'Azione per l'Energia Sostenibile (PAES) con le politiche regionali in tema di rinnovabili per riscaldamento/raffrescamento;
  - un documento sulle potenzialità di sviluppo delle rinnovabili per riscaldamento/raffrescamento;
- che per la realizzazione del progetto saranno sostenuti da Arpa costi per complessivamente Euro 121.811,00 così articolati:
  - Costi di personale Euro 46.632,00;
  - Trasferte Euro 6.200,00;
  - Costi esterni Euro 41.000,00;
  - Costi indiretti Euro 27.979,00;
- che, dal finanziamento per la partecipazione al progetto, deriverà per Arpa un'entrata pari a Euro 91.358,40;
- che tale contributo sarà utilizzato da Arpa nel rispetto delle norme contenute nei regolamenti dell'Unione Europea;

RITENUTO:

- che la partecipazione al progetto RES H/C SPREAD rappresenti per Arpa una opportunità di rafforzare lo status di Arpa quale soggetto di supporto alla pianificazione energetica per Regione (Piano Energetico Regionale) ed Enti Locali (Piani Azione Energia Sostenibile - PAES) e definire modelli di sviluppo delle energie rinnovabili per riscaldamento e raffrescamento in materia compatibile con l'ambiente, perfezionando altresì, attraverso il contatto e lo scambio di esperienze con altri centri internazionali, operativi e di ricerca, la competenza del proprio personale tecnico;

- di prendere atto dell'ammissione a finanziamento del Progetto RES H/C SPREAD, di cui Arpa Emilia-Romagna è partner;
- che il CTR Energia e Valutazioni Ambientali Complesse possa fornire competenze e risorse nell'ambito di tale progetto, che risulta di estremo interesse per l'Agenzia;
- opportuno che Arpa partecipi al progetto "*Heating and Cooling - Strategic Actions Development*" acronimo RES H/C SPREAD;
- di individuare il Direttore Tecnico quale soggetto legittimato ad agire, in qualità di delegato del legale rappresentante di Arpa Emilia-Romagna, nell'ambito del Progetto RES H/C SPREAD, nei confronti del partner capofila del progetto;
- di delegare al Direttore Tecnico l'adozione di ogni atto che si renda necessario per garantire lo svolgimento delle attività progettuali, nel rispetto del budget assegnato;
- di delegare all'Ing. Michele Sansoni, del CTR Energia e Valutazioni Ambientali Complesse, la responsabilità del Progetto RES H/C SPREAD;
- di individuare nei seguenti collaboratori, con possibilità di futura integrazione di altri soggetti, le competenze e le professionalità necessarie alla partecipazione di Arpa Direzione Tecnica al progetto: Ing. Paolo Cagnoli, Ing. Francesca Lussu e Ing. Michele Sansoni.

DATO ATTO:

- che il budget assegnato ad Arpa Emilia-Romagna per la realizzazione del Progetto è gestito dalla Direzione Tecnica;
- che la Direzione Tecnica potrà, nell'arco della durata del progetto, coinvolgere nella realizzazione delle attività altre strutture di Arpa, previo accordo con i relativi Direttori in merito al monte ore previsto per l'impegno dei collaboratori individuati e al corrispondente trasferimento di quote di budget;
- che l'attività di rendicontazione del progetto sarà gestita dall'Unità Gestione amministrativa Progetti europei di Arpa Emilia-Romagna;

SU PROPOSTA:

- del Direttore Tecnico Dott. Franco Zinoni, il quale ha espresso, ai sensi del Regolamento per il Decentramento amministrativo, approvato con D.D.G. n. 65 del 27/09/2010, il proprio parere favorevole in ordine alla regolarità amministrativa del presente provvedimento;

DATO ATTO:

- del parere di regolarità contabile espresso dal Responsabile dell'Area Bilancio e Controllo economico, Dott. Giuseppe Bacchi Reggiani, ai sensi del Regolamento per il

Decentramento amministrativo approvato con D.D.G. n. 65 del 27/09/2010;

- del parere favorevole espresso dal Direttore Tecnico Dott. Franco Zinoni e dal Direttore Amministrativo Dott.ssa Massimiliana Razzaboni reso ai sensi dell'art. 9, comma 5, della L.R. n. 44/95;
- che il responsabile del procedimento è l'Ing. Paolo Cagnoli, Responsabile del CTR Energia e Valutazioni Ambientali Complesse;

DELIBERA

1. di prendere atto dell'approvazione, da parte della Commissione Europea, del Progetto IEE/13/599/SI2.675533 RES Heating and Cooling - Strategic Actions Development (RES H/C SPREAD);
2. di dare atto che Arpa Emilia-Romagna riveste il ruolo di partner nell'ambito del progetto di cui l'Istituto di Studi per l'Integrazione dei Sistemi (ISIS) è partner capofila con compiti di coordinamento;
3. di dare atto che il Progetto di cui trattasi ha durata di mesi 30 a partire dal 1/03/2014 e pertanto si concluderà il 30/09/2016;
4. di dare atto che il costo complessivo stimato per la realizzazione delle attività previste nel Progetto RES H/C SPREAD, da parte di Arpa è pari ad Euro 121.811,00, coperto fino all'importo massimo di Euro 91.358,40 dal contributo della Commissione Europea e per il rimanente attraverso finanziamento proprio, come stabilito dalla vigente normativa;
5. di dare atto che, per Arpa Emilia-Romagna, il soggetto competente all'attuazione e alla gestione del Progetto RES H/C SPREAD è la Direzione Tecnica CTR Energia e Valutazioni Ambientali Complesse;
6. di individuare il Direttore Tecnico quale soggetto legittimato ad agire, in qualità di delegato del legale rappresentante di Arpa Emilia-Romagna, nell'ambito del Progetto RES H/C SPREAD nei confronti dell'Istituto di Studi per l'Integrazione dei Sistemi (ISIS), coordinatore del progetto;
7. di delegare al Direttore Tecnico l'adozione di ogni atto che si renda necessario per garantire lo svolgimento delle attività progettuali;
8. di individuare quale responsabile del procedimento l'Ing. Paolo Cagnoli, Responsabile del CTR Energia e Valutazioni Ambientali Complesse;
9. di delegare all'Ing. Michele Sansoni, del CTR Energia e Valutazioni Ambientali Complesse, la responsabilità del Progetto IEE/13/599/SI2.675533 RES Heating and Cooling - Strategic Actions Development (RES H/C SPREAD);

10. di individuare nei seguenti collaboratori, con possibilità di futura integrazione di altri soggetti, le competenze e le professionalità necessarie alla partecipazione di Arpa Direzione Tecnica al progetto: Ing. Paolo Cagnoli, Ing. Francesca Lussu e Ing. Michele Sansoni.

PARERE: FAVOREVOLE

IL DIRETTORE TECNICO

(F.to. Dott. Franco Zinoni)

IL DIRETTORE AMMINISTRATIVO

(F.to Dott.ssa Massimiliana Razzaboni)

IL DIRETTORE GENERALE

(F.to Prof. Stefano Tibaldi)

Intelligent Energy – Europe (IEE)

Annex I

Description of the Action

RES Heating and Cooling - Strategic Actions Development

RES H/C SPREAD

Contract N°: IEE/13/599/SI2.675533 - RES H/C SPREAD

Duration (in months): **30**

Coordinator

Mr Stefano Faberi

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1 Summary

a) Abstract

The RES H/C SPREAD project intends to develop pilot six regional plans in the field of the heating and cooling renewable energies. The project involves six pilot Regions pertaining to as many European countries representing the EU main climatic zones, with a prevalence of the Mediterranean nations. The planning exercise aims at setting harmonized and standard baselines to better allow the developers to set their targets and policies. These baselines will provide robust and detailed maps of the RES H/C supply and demand potentialities as well as an in depth analysis of the local action plans (like the SEAPs) developed in the reference territories. In each Region, Country Governance Committees will be constituted to support the plans implementation and to help reach the consensus on the proposed policies among the Regional Authorities, key stakeholders and citizens representatives. The plans will then developed in accordance with the regional demand for heating and cooling and, in particular, in line with the EED requirements, "*optimize the utilization of locally available residual and waste sources of heat, cooling and RES through the use of district heating & cooling networks in areas of sufficient heat and cooling demand*." In the last phase of the project, a methodological and technical guide, will be produced and distributed among the main target users including national and regional authorities, energy agencies and regulatory boards.

b) Major outputs & expected results

1. Provision of RES H/C development plans for six European Pilot Regions: Castilla y Leon in Spain, Emilia Romagna in Italy, Salzburg in Austria, Riga Region in Latvia, Western Macedonia in Greece and Rhodope in Bulgaria. The plans will be harmonized with the local SEAPs targets and will be consistent with the national strategies ad policies in order to serve as pilot case for the diffusion of this planning exercise among the country regions and, where relevant, at national level.
2. Constitution of permanent "Country Governance Committees" in each of the participants regions with the aim: to provide guidance to the developers; to assess the plan implementation, including the monitoring phase; and, at the same time, to raise consensus and awareness among the involved stakeholders. These governance committees will be constituted by representatives of Regional Administration as well as by other local authorities, key stakeholders of the involved regions.
3. Signature of the relevant regional authorities participating to the Country Governance Committees of a Memorandum of Understanding (MOU) for the actual implementation of the RES H/C plans at policy level
4. Production of general methodological and procedural guidance to help the regional authorities to map the demand and supply potential of their territory and be able to match demand and offer through cost benefit analysis in order to meet the Energy Efficiency Directive (with specific reference to Art. 14) as well as the Renewable Energies Directive requirements

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2 Overview of the Starting Point of the Proposed Action

a) Common important user needs and market barriers

The RES Heating and Cooling Strategic Action lies within the EU Energy and Climate Package and, in particular, in the package set of measures outlined in the Renewable Energy Directive (2009/28/EC). In addition to the obligation for each MS to set binding national targets for raising the share of renewable energy in their energy consumption by 2020, the Directive requires that each EU country adopts a National Renewable Energy Action Plan (NREAPs) for energy from renewable sources. The NREAPs, in line with the principle of subsidiarity, set national targets for Member States for the share of energy from renewable sources consumed in transport, electricity as well as heating and cooling uses by 2020.

For what concerns, in particular, the promotion of RES-H/C in Europe, the Directive, in addition to include these technologies in the target setting definition as well as in the National Renewable Energy Action Plans (NREAPs), defines an explicit obligation for the use of RES-H/C in new and refurbished buildings: "*In their building regulations and codes Member States shall require the use of minimum levels of energy from renewable sources in new or refurbished buildings*" (Directive 2009/28/EC, article 13 (5)).

In accordance with this Directive aims, it is worth emphasizing that the MSs RES H/C targets should be achieved within a set of coordinated and harmonized support policy schemes. To this end it is nonetheless important to underline that: "*best practice policy design and the harmonization of support schemes for electricity from renewable energy sources within the European Union have been discussed controversially for years. In contrast, policies for increasing renewable heating and cooling in the European Member States and the harmonization of best practice instruments in this field are still at an early stage of development*"[1].

This is still confirmed by recent a study like undertaken by Ecofys[2] and by a Communication of the Commission[3] that express a concern on the possibility that the MSs achieve their RES H/C objective by 2020. Actually these studies envisage that the share of renewable energy in the heating and cooling sector may actually decline in the coming years depite the fact that in 2010 the majority of the MSs were able to achieve and even exceed their target, as reported from the cited Commissiion report. In particular, according to the European Commission, there are concerns about slow progress regarding online applications, administrative time limits for planning and permitting decisions, and transparent approval processes. These concerns are particularly acute in the heating and cooling sector, where the disparate nature of the different possible technologies hinders the development of uniform administrative approaches. Planning procedures were identified as one of the challenges to the renewable energy growth. In this sense, the implementation of national plans for RES H&C, armonized at local level thanks to a standardized procedure with the local planning procedures, will be a powerful instrument to overcome these barriers and to contribute in reaching the European targets[4].

[1] RES-H Policy Project, European harmonized policy to promote RES-H/C – Fraunhofer/ISI Institute, April 2011

[2] Renewable energy progress and biofuel sustainability, ECOFYS et al, 2012 Report for the European Commission Submission September 2012, Tender Number: ENER/C1/463-2011-Lot2

[3] Renewable Energy: progressing towards the 2020 target (COM (2011) 31 and SEC (2011) 130)

[4] COMMISSION STAFF WORKING DOCUMENT Accompanying the document REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL Renewable energy progress report

It is then crucial to reinforce the coordination between the local and Regional plans and the national policy strategies, being the RES-H/C a very local market that requires local policies and infrastructures. It is worth noting here that also the Energy Efficiency Directive (Directive 2012/27/EU) envisages the necessity to take into account local and regional levels for what concerns the development of efficient heating and cooling systems: *"Member States shall adopt policies which encourage the due taking into account at local and regional levels of the potential of using efficient heating and cooling systems, in particular those using high-efficiency cogeneration. Account shall be taken of the potential for developing local and regional heat markets"* Where these markets might also include, when economically convenient, the use of *"…heating and cooling from waste heat and renewable energy sources*" (Directive 2012/27/EU article 14 (2, 4).

Moreover, in accordance with EED, Member States are required to identify the potential for high-efficiency cogeneration and efficient district heating and cooling and to analyse the costs and benefits of the opportunities that may exist. This comprehensive assessment should be carried out and notified by 31st of December 2015, bases on the methodology that EED indicates in Annex IX, in order to provide clear results to deliver energy efficiency in heating and cooling.

The comprehensive assessment must cover the heating and cooling demand, based on measured and verified consumption information as detailed as possible at sectorial and geographical break down, and the forecast of how this demand will evolve in the next 10 years. It must include a heat map that identifies significant demand and supply points for heating and cooling and existing and planned district heating and cooling infrastructures.

Finally, it is worth noting that the Directive 2010/31 on the Energy Performance of Buildings (EPBD) states that buildings account for 40% of total energy consumption in the Union and "*Measures are needed to increase the number of buildings setting which not only fulfil current minimum energy performance requirements, but are also more energy efficient, thereby reducing both energy consumption and carbon dioxide emissions. For this purpose Member States should draw up national plans for increasing the number of nearly zero-energy buildings and regularly report such plans to the Commission*". To achieve these objectives, it is clear that the use of RES-H/C is of strategic importance in all member countries.

In this framework, to achieve a successful implementation of the national strategic objectives and safeguarding, at the same time, the subsidiarity principle, the Regions and the local communities should be allowed to develop their local action plans (like, i.e., the SEAPs) in harmony with the national requirements and strategies and, vice versa. The National plans should be developed through the provision of a set of data that take into account the local RES-H/C demand and supply reality.

For what concerns the development of the plan themselves it is furthermore vital for the majority of the EU countries, and, especially for countries that have not even started developing a strategy in this sense, to compare and analyze experiences and good practices as well as, where possible, develop cross border collaborations. Guidelines concerning all relevant procedures for the implementation of RES H/C plans, have then to be developed on the basis of these good practices and cases studies have to be carried out to readdress and reinforce these guidelines basing on the accrued concrete experiences.

b) Current situation in the target countries/regions:

EU and Member States energy policies for Energy Efficiency and Renewable Energy Sources are essential components of the actions to deal with climate change. For what concerns the RES, many

efforts have been addressed toward the electricity production but very little for the development of the renewables for the heating and, especially, cooling systems. This despite the fact that the heating and cooling systems affect the bulk of the building energy consumption, and that the corresponding renewables technologies are often very innovative, are provided by domestic manufactures and, with small incentives, can provide great results in terms of energy saving and emission reduction. The level of awareness to this topic and progress made for the RES H/C development are obviously different in the EU countries and the following paragraphs provide a concise overview of the state of art in the countries participating in this project.

From the short national synthesis outlined in the following paragraph, it appears that all the involved countries have to face and solve similar typology of problems and gaps in order to allow that the RES H/C technologies can become an effective market driver and contribute to the achievement of the EU energy and environmental targets. For some countries like, for example, Austria, Greece, Italy and Latvia these gaps concern the lack of harmonization and consistency among the different planning layers: national, regional and local while, for all the temperate climate countries, there is in addition the problem to develop suitable RES based cooling technologies.

Actually, the methodology for determination of cooling demand constitutes a big challenge in EU level. Although, a big number of studies and case studies have been taken place all over Europe concerning the heating demand, little information exists for cooling demand. In the current project, attention will be paid in order to develop a clear methodology and guidelines for determine and metering the cooling demand of a region, which will be used as a guideline for National implementation (see, i.e. WP 4 and WP 5).

Austria

In the area of heating and cooling, the main policy instruments are competence of the Austrian regional governments ("Länder"). Specifically, the development of the legislation and RES measures for residential buildings falls largely within competence of the regional governments. The region-specific investment incentives for private households constitute the main support instrument for RES heating and cooling projects in Austria.

The regional governments rely on a combination of subsidy schemes for heating&cooling renewable energy technologies (investment grants, etc.), which are in some cases part of the incentive packages for new buildings and for thermal refurbishment of buildings. Regional governments have also significant investment grants to support the construction of biomass-based district heating plants. Subsidies for solar thermal systems are also in place.

Since the implementation of building-related measures lies in regional competence, the conditions for eligibility in the respective regions are regulated just as differently as the type and level of housing support. The use of innovative climate-relevant systems is supported in all Austrian regions ("Länder") in accordance with the Agreement signed between the federal government and the regional governments, in line with the Article 15a B-VG of the Federal Constitution.

Biomass heating installations, solar installations, heat pumps and the connection to local and district heating networks are particularly strongly supported across the country. The promotion of RES measures takes place mainly in the form of (one-off, outright) investment grants. However, low-interest/base paid interest direct loans are also awarded by the regional governments as well as annuity subsidies for bank loans or credits. Investment grants are available in several regions (e.g. upper Austria) both for purchasing biomass boilers and for connecting buildings to biomass district heating plants. Agricultural programs have also supported investments in district thermal energy plants and in heating grids.

Strict emissions and efficiency standards, progressively tightened by state governments, have supported the development of good products. Specifically, standards have triggered the development of ultra-low emission boilers using firewood, wood chips and wood pellets. Biomass boilers have to meet emissions and efficiency standards in order to be sold commercially. Boilers have to pass a certification test and have to carry labels displaying boiler data.

Early standardization of fuels (especially pellets) has also been a driving force behind the diffusion of biomass-based boilers. Standardization allowed manufacturers to design ultra-low emissions heating systems that were convenient to

use. The quality and convenience of these systems helped create consumer confidence. Fuel standards are a legal requirement, but are also reinforced through product warranties on biomass boilers.

Regional government have also introduced RES heat mandates. In these mandates, new or renovated public buildings and large private buildings in some regions as well, must use renewable thermal technology for heating and hot water.

These mandates have also linked access to state housing subsidies to the installation of RES heating systems. While regulations differ from one regional government to the other, the basic principle is that new homes that receive funding from the state housing programs must also install a renewable heating system or a gas-condensing boiler combined with a solar thermal system.

Awareness raising and promotional activities (energy advice, outreach campaigns, training) have also played a role in the diffusion of RES heating technologies.

Although most of the policy measures are regional, some support schemes are available at the federal level. A federal support scheme for biomass heating systems ("Förderaktion Holzheizungen") was initiated within the program "Klima- und Energiefonds" in 2008. The core objective of this support scheme was to stimulate the declining market for biomass boilers and facilitate a steady increase of biomass in the residential heating sector. Within this action, the installation of biomass heating systems was incentivized with an additional investment subsidy for pellet boilers and for log wood and wood chip boilers with a rated power of up to 50 kW.

The use of district heating has substantially increased in Austria over the last 30 years. Today, district heating systems have a significant share of the heat market. Specifically, in urban areas, district heating has a high density. District heating in Austria is dominated by the use of CHP and plants for waste incineration. The use of local heat networks has increased since the 1980s in a number of small towns and municipalities. These local networks are to a large extent supplied with solid biomass heat or CHP plants.

The development of district cooling is still in an infant state. While some pilot facilities are being run by the city of Vienna, most of the developments are still in an R&D phase.

District heating is highly influenced by developments in the buildings sector. Specifically, the trends towards more stringent standards for new buildings and more incentives for building renovation have a significant impact on the load profiles of district heating networks. With a lower heat load from buildings, the heat density of district heating networks is reduced. In turn, the fraction of heat losses increases and with higher unit investment costs, the production costs become also higher. These developments pose challenges for district heating suppliers and require new technological strategies and business models, for instance linked to low-temperature networks. Therefore, they need to be reflected in the preparation of RES H/C plans in Austria.

In general terms, the local nature of the heating markets and the competences of regional governments in Austria make it more suitable for the development of regional RES H/C plans than of a national plan.

Bulgaria

In Bulgaria, very little has been done to support RES H/C in terms of legislation and planning, although RES H/C present the highest economic RES potential. The project would support: municipalities to fulfill their obligation to elaborate Short-term and Long-term RES programs as well the national authorities to implement and update the Bulgarian NREAP by developing the heating and cogeneration assessment according to Art.14 of EED.

In Bulgaria, the target areas are two: the country as a whole (national level) and the Rhodope region, particularly the 21 municipalities - members in the Association of Rhodope Municipalities (ARM). The main actors at national level are the Sustainable Energy Development Agency (the State authority in charge of the implementation of RES policy) and the Ministry of Economy, Energy, and Tourism (in charge of the district heating and cogeneration policies). At regional level, the main actors are the municipalities and their association ARM. Biomass represents by far, the main RES H/C economic resource in Bulgaria. Rhodope region is especially rich in this resource. In 2010, RES H/C accounted for 20.1% of the total national heating and cooling. Biomass contributes to 95.4% of that figure.

Bulgaria offers very favourable conditions for RES-E development, which resulted in its quick expansion in the last years. RES H/C, however, received very limited political support The Bulgarian NREAP highlights the necessity to strengthen the support to RES H/C, as these energy sources have the highest economic potential to contribute to the national renewable energy targets.

The use of renewable energy for heating and cooling is currently promoted through subsidies from the EU Structural and Cohesion Funds, several low-interest loan schemes and through exemption of the building owners from property tax payment, but neither of these has wide enough coverage. The complicated procedures to get funding, and the low

market development are a serious barrier. There is no RES H/C tool available in the country.

Greece

In Greece, renewable electricity generation is strongly promoted through a guaranteed feed-in tariff. On the other hand, the use of RES systems in heating and cooling is only supported by tax rebates or capital investment subsidies, which are bounded in specific programs. Tax relief is granted for the installation of renewable boilers or the replacement of existing fossil heating boilers with renewable ones. The Programme "Exoikonomisi kat'oikon" supports measures to increase the energy performance of buildings through the provision of interest-free loans and subsidies for the installation of RES plants. Apart from that, the new investment law (Law No. 3908/2011) supports the installation of RES- H plants.

Nonetheless, the national supporting scheme for promotion of RES H/C plans, remains weak. The main reason is the lack of supporting studies aimed at checking the contribution to the accomplishment of National Goals for RES, from the implementation of such plans.

The current project will help Greece to overrun the barriers for the implementation of RES H/C plans and create a roadmap for establishing such plans. The analysis of best practices, the development of guidelines concerning all the relevant procedures for the implementation of RES C/H plans, and the implementation of these guidelines in a case study at local level, will lead to the recognition of the advantages that these plans offer in the field of energy saving and environmental protection. This case study in combination with the diffusion of information through the National Governance Committee and the other dissemination activities envisaged by the project will be used as a guideline for applying such plans at national level.

In addition to this, it is worth noting that in Greece it is very important to create a strong link between the Local Authorities and the Central Government for the implementation of RES H/C plans. More than 70 Local Authorities have signed the Covenant of Mayors, fact that proves the intent of local authorities to contribute to the sustainable development of the country. Nonetheless most of the projects planned by the Local Authorities remain in the initial stage because of the lack of communication between the involved key actors.

Moreover, a big number of studies have already been take place in the field of RES and CHP potential. These studies concern the 1st National Renewable Energy Action Plan (NREAP) in the framework of 2009/28/EC Directive and the annual progress reports for the promotion of high efficient CHP in the scope of 2004/8/EC Directive. In these studies the RES and CHP potential for heating and cooling, as well as the barriers for the implementation of such projects, have been determined. All of these studies have to be updated taking into account the new challenges that are arising from new EED.

Italy

In Italy only recently, in the framework of the National Energy Strategy, it has been recognized that the heating and cooling renewables have to be supported to achieve the European objectives to 2020, and to undertake the road to the economy decarbonisation up to 2050[5].

The main challenges are then to develop the RES H/C at, at least, the same level of the RES E and convert part of the cooling demand, that has steadily increased over the past decade and that is a continuous source of concern for the grid stress during the summer peaks, from electricity to renewable sources.

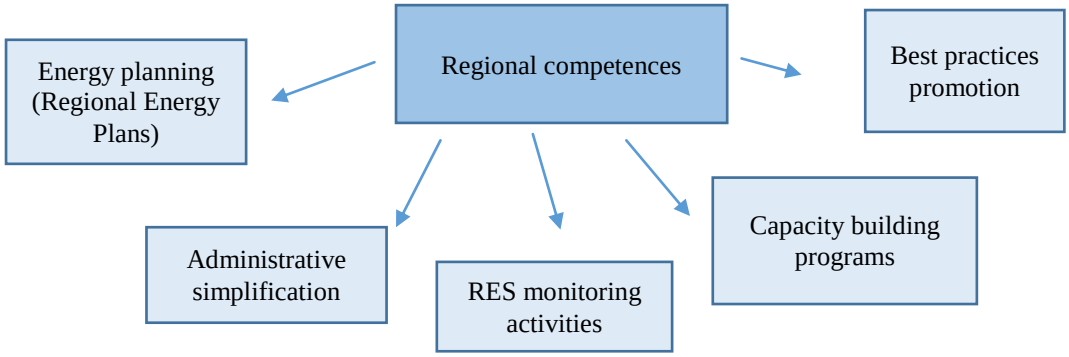
The national strategy of development for renewable H/C rests upon a number of specific mechanisms, dedicated to the different categories of use. For the civil sector it has been recently introduced the "Thermal Energy feed in tariff". This mechanism gives a financial support to the most efficient technologies for heating and it can be used even from the public sector. The Italian Government has foreseen the reaching of the NREAP target for 2020 (17% of the gross final consumption of energy) just with this mechanism with a total expense for the energy system of roughly 900 Millions of Euro.

The mechanism called "White Certificates" will cover the extra costs for H&C RES investments for the bigger interventions, especially in the industrial sector. Finally, the potentiality of district heating and cooling will be supported through a specific revolving fund. It will guarantee private investments and aims to cover the lack of interest inside our country for this technological option. As a result the Italian Government has foreseen an amount of investments from 15 to 20 billion of euro to 2020, with an important effect to the entire energy sector.

[5] See "Energy Roadmap 2050".

Despite this comprehensive approach, there is still a lack of harmonized approaches to the development of these energy sources. For what concerns, in fact, the harmonization of the energy strategies between the central administration and the regional and local ones, it is worth remembering that in Italy the energy planning is shared in a competitive manner between the central government and the Italian Regions, as established by Article 117 of the Italian Constitutional Law. In particular, the Italian Regions have been entrusted with the development of the decentralized energy production systems and have the responsibility of the land use planning, with special emphasis for what concern the Renewable Energy Sources.

Regional activities in the field of H&C RES



If the central level of government proposes strategies and introduces support mechanisms, the local level should translate these objectives into detailed plans and programs to generate concrete and visible results. In Italy, more than 1400 Local Authorities have signed the Covenant of Mayors but, among the 20 Italian Regions, just seven participate as a Coordinator, a role that in most cases is played by a Province. The poor coordination among the different institutional actors, often due to the lack of regional-local governance discussion boards, prevents the standardization and harmonization of procedures among the various levels which, in turn, generates information deficiencies and lack of synergies. All this hinders the possibility to translate the policy decisions into investments in the local area and severely limits the development of newer technological solutions (especially for H/C RES) during the implementation of plans.

Latvia

The Latvian Government has set a challenging target of 40% renewable energy sources share in total final energy consumption to be met by 2020. Achieving this target will require coordinated communication between all involved stakeholders (policy makers, business sector, associations and NGOs, etc.) based on knowledge and high understanding at all levels to ensure efficient and sustainable use of local renewable energy sources.

The share of RES has traditionally been significant in Latvia`s energy supply. In 2011, RES made up 33% of the total gross final energy consumption, with the majority (25%) of this produced by biomass boiler plants, leaving a small share for wind power plants, biomass cogeneration power plants, and small hydropower plants. Due to large forest cover (around 54% of country`s area) firewood is the most popular and most frequently used biomass resource in heat production.

In order to support the use of RES in energy production, mainly for heating purposes, several support schemes have been implemented on national level. The main driving force for increasing the RES share in electricity production is the feed-in tariff system, which is set for different technological solutions and electrical capacities. The other support scheme is related to investment grants – several national programs and initiatives for installation of RES technologies either in public sector, households, industries, etc. Also, strategies for the fulfilment of targets for RES use and in general for sustainable development on national level have been developed. However, there are no requirements on regional or local level for design of sustainable energy action plans, neither the RES H/C plans. Therefore currently the RES H/C use is covered in Territorial Development plans as one part of the development sectors with no specific objectives or targets. In addition, the local authorities that have signed the Covenant of Mayors additionally have developed sustainable energy action plans. Taking into account the overall situation in country, there is no doubt that there is definitely a lack of harmonized approaches for the development of RES H/C plans. As in many cases, very often there is a gap between national strategies and real activities on local level, therefore the establishment of country Governance Committees in framework of project RES H/C SPREAD will be platform for further activities for

promotion of RES use for heating and cooling in the region. Also, by implementing the project RES H/C SPREAD it is planned to develop a RES H/C plan in selected case study region (Riga Planning region) which could be than reduplicate and used in other regions as a bases for the development of RES H/C plans.

Spain

In Spain although big effort has been made in the past for promoting the RES, were more focus of the electricity production and less in thermal. From 2001-2010 the first challenge to support RES was made with the PFER (Plan for the promotion of the renewable energies). Then with the PER 2005-2010 (Plan of Renewable Energies) an increment of the 5% the primary energy consumption was reached. The RES H/C has been integrated in the general energy planning but never with a specific reference to RES H/C until the approval of the Real Decree 314/2006 of Technical Code for Buildings where in the section H1 is mention the Limit of the energy demand of heating and cooling and in the section HE.2: Performance of thermal installations.

During the elaboration of the PER, the Minister of Industry through the national energy agency convened every six months the regional authorities in order to fulfill the **Directive 2003**/54/EC on the promotion of electricity produced from **renewable energy** and to work in the same way of the Renewable Directive 2009 and giving the basis for the future Directive of energy efficiency. From that period it had stopped the work meetings from national level with the regions and a disconnection of the two levels national/regional become evident. Although it was launched the Law 2/2011 of Sustainable Economy which included in its Art. 78, the minimum national objectives in saving energy, energy efficiency and renewables.

In the meantime a national programme called E4 (Energy Efficiency Strategy of Spain, 2004-2012) was developed where energy efficient H/C systems had a highlight relevance, but not with the RES compulsory requirement.

b) Link to relevant actions beyond the target countries/regions:

Several IEE projects have addressed RES H/C in the EU in the past. The RES H/C SPREAD project will incorporate useful information and tools from these past projects to the extent possible. In doing so, RES H/C SPREAD will take into account the following guiding elements to make RES H/C plans successful:

- appropriate technologies,
- sound business models,
- well-targeted policies,
- integral involvement of national and regional authorities and relevant actors.

Among others, results from the following IEE projects will be used in the RES H/C SPREAD project: RES H/C policy, ECOHeat4eu, UP-RES, BIO-SOL-ESCO and SDHtake-off (and its successor SDHPlus). In addition, where appropriate, insights of the RES heating and cooling (RHC) platform regarding the technological possibilities will be used.

The ECOHEat4eu project, for instance, identified good practices in support schemes and developed insights into the creation of national legislative frameworks towards the promotion of district heating and cooling (DHC) systems. Recommendations for policy-makers about how to created legislative frameworks and national roadmaps were developed. These results are valuable for an effective development of national RES H/C plans.

The RES H/C policy project developed qualitative and quantitative assessment of national policies and recommendations as to how to best design a support framework for increased RES-H/C penetration in national heating and cooling markets in selected EU member states. It also explored possible avenues for harmonization of policies. These analyses and evaluation of policies and markets will be used, whenever possible as inputs.

The UP-RES Project (Urban Planners with Renewable Energy Skills) organized training for urban and regional planners working in national, regional and municipal authorities. In addition to the

trainings, best practice cases in which renewable energy solutions have been integrated with urban planning were collected. This information can be useful in the conception of measures for the RES H/C plans and the steering of the governance committees planned in the RES H/C SPREAD project.

Generally, these projects have developed valuable analysis and tools for the penetration of RES H/C into the energy markets. However, these results still need to flow into the conception and implementation of programs and measures to stir RES H/C markets. Thus, the insights of these and other projects and initiatives will be incorporated as inputs into the RES H/C SPREAD project. The RES H/C SPREAD project will represent a step forward in comparison to previous initiatives. This step will be the concrete formulation of plans for the development of RES H/C markets, with the involvement of relevant authorities at the national and/or regional levels, through governance committees.

Moreover, under the current economic crisis, EU MS are very much in need of innovative instruments, specifically to be able to finance uptake of RES H/C technologies. Therefore, selected results from projects showing potential avenues for innovative financial instruments, marketing strategies and sound business models will be incorporated. A case in point is the BIO-SOL-ESCO project. This project gained some understanding of the approaches adopted by ESCOs and promotion of this knowledge among the EU biomass heat and solar thermal industries and potential users. The project also documented and examined examples of energy services implementation in the use of biomass heat, solar heat or biomass+solar systems in several Member States.

Whenever suitable, elements will be introduced in the national and regional RES H/C plans to facilitate the market introduction of more innovative technologies such as Solar District Heating (SDH). Several projects have addressed or are currently working on overcoming barriers and developing new business models and marketing strategies, such as SDHtake-off and its successor SDHplus. Relevant results will be incorporated.

For what concerns the local data gathering and exchange and the interaction between the municipal and regional levels, It is worth noting the experience that the partner BSERC is accruing in the ongoing IEE project: MESHARTILITY (**Me***asure and* **shar***e data with u***tilit***ies for the Covenant of Ma***y***ors*) that aims at developing solutions and tools that facilitate the exchange of energy data between energy companies and local authorities. This experience might prove very useful in defining the initial stages of drawing up the plans RES H / C (see i.e. WPs 5 and 6).

Results from other initiatives can also be incorporated as those from the Renewable Heating and Cooling platform. The RHC platform has produced comprehensive overviews of RES H/C technologies and agendas for R&D and innovation in the RES H/C field. Selected elements may be useful in the shaping of the RES H/C plans and measures. It will be in addition possible to take advantage form the cross fertilization actions to be carried out in collaboration with the projects financed by the IEE call 2013 and focusing on the same topics of RES H/C SPREAD.

Finally it is worth emphasizing that at least two important partners: AEA (in the role of project leader) and CRES participate in the Concerted Action for EED implementation. Despite that the information gathered in this project are highly confidential, the experience accrued and, somewhat, the lesson learned, could be very beneficial for the overall project especially for what concerns the topics on RES-H/C applied to power cogeneration and efficient district heating

systems as well as guidelines for determine and metering the cooling and heating demand.

c) In case of follow-up proposals:

This proposal is not built on previous projects.

3 Objectives of the Proposed Action

a) your specific objectives (during the action):

In the Strategic Action of the RES Heating and Cooling priorities for 2020 is clearly mentioned the importance of the cross-border collaborations for the development of national plans as well as of the exchange of best practices to harmonize/consolidate local and regional plans to support Member States to develop their national strategies. It is also recommended that these plans "*should be in line with the requirements of the EED and will be expected to provide robust data on demand and supply sources and to identity areas of priority for intervention.".* These plans have then to be developed in accordance with the regional demand for heating and cooling and, in particular, "*optimize the utilization of locally available residual and waste sources of heat, cooling and RES through the use of district heating & cooling networks in areas of sufficient heat and cooling demand*."

Considering in addition the very local nature of the heating and cooling demand and the high number of actors that can interact in the development of this market, it is recommended the constitution of governance boards that could support and steer the policy making process from its definition phase to the assessment and control of its implementation.

So, taking into account these priorities and recommendations, the harmonization requirements outlined in chapter 2/a, concerning both regulatory and governance aspects, and considering the different legislative context and the plans development situation outlined in the previous chapter, we propose to develop a project having the general and specific objectives hereafter outlined.

At general level the RES H/C SPREAD project has a two complementing and synergic objectives, each addressed to the main actors categories that participate to it:

- On the technical point of view the consultancy firms and the energy agencies participating to the project will highlight and exploit the EU wide best practices in the field of the RES Heating and Cooling policies and strategies and set up an harmonized planning methodology in order to support national and local energy authorities in the development and implementation of their RES H/C plans.
- On the policy point of view the national and regional/local authorities participating to the project will develop these plans in agreement with the national/local key stakeholders and the citizens representatives and in accordance with the national directives.

This entails the achievement of the following specific objectives and outputs:

1. Provision of RES H/C development plans for six European Pilot Regions: Castilla y Leon in Spain, Emilia Romagna in Italy, Salzburg in Austria, Riga Region in Latvia, Western Macedonia in Greece and Rhodope in Bulgaria. The plans will be harmonized with the local SEAPs targets and will be consistent with the national strategies ad policies in order to serve as pilot case for the diffusion of this planning exercise among the country regions and, where relevant, at national level.
2. Constitution of permanent "Country Governance Committees" in each of the participants regions with the aim: to provide guidance to the developers; to assess the plan implementation, including the monitoring phase; and, at the same time, to raise consensus and awareness among the involved stakeholders. These governance committees will be constituted by representatives of Regional Administration as well as by other local authorities, key stakeholders of the involved regions.

3. Signature of the relevant regional authorities participating to the Country Governance Committees of a Memorandum of Understanding (MOU) for the actual implementation of the RES H/C plans at policy level
4. Production of general methodological and procedural guidance to help the regional authorities to map the demand and supply potential of their territory and be able to match demand and offer through cost benefit analysis in order to meet the Energy Efficiency Directive (with specific reference to Art. 14) as well as the Renewable Energies Directive requirements

b) your strategic objectives (for the longer term - to 2020):

It is expected that, on the medium longer term, the achievement of the objectives outlined in point a) attains the following goals:

1. The local/regional harmonization methodology and procedures developed in this project will be taken into account and possibly implemented Europe-wide
2. The reference technical committees of the EU regulatory boards will discuss and improve the technical guidelines and tool developed in the project
3. The improvement of the policy making capacity of the regional and local authorities and a significant simplification of the bureaucratic procedures concerning the approval of new RES facilities and plants.
4. The increase of the stakeholders and citizens awareness to the value and the use of the local renewable resource

From the environmental point of view the implementation of harmonized and stringent plans in the RES H/C field will allow the EU Member States to achieve the EU 2020 targets for what concerns the share of the RES production.

4 Target Groups and Key Actors / Letters of Support

a) Target Groups:

The main target group will be:

- at regional level all **regional authorities and decision makers** as well **experts** operating in regional energy and/or environmental agencies in charge to set, design, develop and monitor regional energy plans;
- at local level all **local authorities** and **support structures** responsible for the design and implementation of the SEAPs that might benefit from the project outcome to re-assess their targets and policy impacts, especially for what concerns the use and destination of the heating and cooling renewables, and better integrate their action plans with the regional ones.
- at country level national **Ministries and national agencies, regional coordination boards** and **municipalities associations** as well the **Energy Authorities** and **Energy Body** in charge of energy planning, especially in the field of renewable energies and environment, and responsible for the implementation of the Energy Efficiency and Renewable Energy Directives.

Research institutions, local universities, consulting firms, NGO's (like, i.e., the national Friends of Heart associations), regional development and financing agencies, ESCOs, standardization bodies (e.g. CEN/CENELEC at European level, for example with reference to CEN/TC 228 the Technical Committee on Heating systems in buildings of the European Committee for Standardization) involved in studies related to renewable heating and cooling systems will also benefit from this action.

Other stakeholders targeted by the project are industrial and agricultural associations as well engineer and architects concerned by heating and cooling renewable products and systems (biomass boilers, biogas plants, heat pumps and cooling systems, etc.) as well as seller and installers of RS H/C components and products. Due the regional local focus of the project, the target groups that will be, in the first instance, directly involved by the project, are their regional/local representatives like the regional industrial and trade associations. National and EU stakeholders will be then reached through the dissemination actions envisaged in WP8.

Finally, but not less important, the project aims at involve the consumers associations and the environmental citizens associations like, for example the European Environmental Bureau and its national branches.

b) Key Actors:

The key actors are the national and regional energy or development agencies in connection with their policy counterparts: the regional and local authorities and Standardization Bodies. Nine out of eleven partners of this project are represented by these type of organizations. They have proactively contributed to the development of this proposal and are WP leader of some key project WP.

c) Letters of support:

We have received the following support and endorsement letters:

Country	Organization name	Organization type
AT	Municipal Department 20- Energy Planning of the City of Vienna	Local Authority
AT	Regional Authority of Salzburg	Regional Authority
BG	Republic of Bulgaria, Sustainable Energy Development Agency, SEDA	Executive agency within Ministry of Economy, Energy and Tourism
EL	Hellenic Republic , Region of Western Macedonia	Regional Authority
EL	Hellenic Republic, Ministry of Environment, Energy and Climate Change	State authority
ES	Association of Spanish agencies for energy management, ENERAgen	Association of energy agencies
BG	FEDARENE	European Federation of Agencies and Regions for Energy and Environment
IT	Region Emilia-Romagna	Regional authority
IT	National Agency for New Technologies, Energy and the Environment, ENEA	National Energy Agency
IT	Emilia Romagna ANCI	National and Local association of local authorities
IT	Region Piemonte	Regional Authority, president of the “Interregional Energy Coordination” board.
LV	Ministry of Economics of the Republic of Latvia	Ministry

Overview Table: Engagement of Target Groups and Key Actors

Note: In this project some target groups acts also as actors depending if they participate to the project (and so they are actors) or are simply beneficiary of it. Other actors do not participate as partners but collaborate to the project in the so called "Governance Committees", see chap 5.

(a) Target Group(s)	How will the target group(s) benefit from this action?	Key task(s) number from your work programme	Name of organization(s) providing a Letter of Support
Local/ Regional authorities and Decision Makers	Adoption of the guidelines, tools and final recommendations provided by project in order to implement these outcomes in their regional and local planning as well as contribute to extend these achievements at national Level in order to meet the national strategies and the relevant Directives targets Experience and suggestion for the organization of effective local governance boards	Key WP: WP7 (tasks 7.1 and 7.2) Support WP: WP4 (task 4.2 and 4.3) WP 5 and WP 6 WP3 ,task 3.3	Italy: Emilia Romagna Region, Piemonte Region Austria, Municipality of Vienna Austria: Salzburg Region Greece, Region of Western Macedonia Spain, Region of Castilla y Leon
Regional and National Energy Agencies, Experts, Architects, etc.	Take advantage from the experience accrued in the operative WPs and in the final consolidation and evaluation WP to reinforce their capability to support the public authorities above outlined	WP4, tasks 4.2 and 4.3, WP7, tasks 7.1, 7.2	Italy: ENEA
National Authorities and national energy bodies, regional coordination boards, national municipalities associations	Regulatory framework for the evaluation of the RES H/C potential at national level. Extension of the planning methodology country wide. Harmonization of the planning targets at local, regional and national level	WP4, task 4.3, WP7, tasks 7.1, 7.2 WP 8	Greece: The Ministry of Environment, Energy & Climate Change Italy: National Association of Italian Municipalities Spain: FEDARENE Bulgaria: Sustainable Energy Development Agency, SEDA Latvia: Ministry of Economics
Business operators (industry, agriculture, trade)	Lesson learned about the advantages to collaborate in governance boards Possible increment of their business activities due to the development of a RES H/C market	Mainly WP3 ,task 3.3 WP 6, task 6.2 WP 8	
Citizens	Lesson learned about the advantages to collaborate in governance boards in order to increase the citizens awareness.	Mainly WP3 ,task 3.3 WP 8	

(b) Key Actor(s)	How will the key actor(s) contribute to this action?	Key task(s) number from your work programme	Name of organization(s) providing a Letter of Support (see above)
National and Regional energy and environmental agencies, Regional development agencies, Experts	State of art analysis on best practices and policies at EU level Active collaboration in the RES H/C plans development and in particular to the regional data mapping on the renewable energies supply and demand potentialities, harmonization of the plans with the local SEAPs, setting of plans targets and implementing measures. Defining and applying of monitoring procedures.	WP2, WP 6	-
Consultancy firms, experts. Standardization bodies	Definition of reference planning methodologies and tools to set the planning baselines for the RES H/C data mapping and the local planning initiatives. Provision of standard procedures for the RES technologies impact evaluation and cost benefit analysis Set of organizational rules for the effective functioning of the Governance Committees	WP 2, 3, 4, 5 and WP7	
Regional and local authorities, local business operators, citizens representatives	Constitute the project Governance Committees in order to exchange opinions and requirements and increase the local operators and citizens awareness about the plans targets.	WP 3	

5 Work Programme

5.1 Introduction to the Work Programme

a) Rationale and structure of your work programme:

The RES H/C SPREAD project is structured by nine WPs of which one traditionally dedicated to coordination activities (WP1), two referring to the specific and common dissemination activities (WP8 and WP9) and the remaining six, from WP2 to WP7 dedicated to the analysis and operative phases of the project. These six WPs can be conceptually sorted in three operative phases: assessment and analysis of the state of art of the policies and practices at EU level, design and development of the RES H/C plans, results evaluation and consolidation.

The assessment and analysis phase is composed by one WP, WP2, referring to the "Best practices analysis" and cross border collaboration aiming at providing both a wide overview on the policies and measures adopted by EU MSs and a more in deep analysis of the RES H/C policies implementation status in the participating countries, including experiences on good practices and failures.

The design and development phase is then composed by four WPs:

- WP3, that have to constitute and then **manage a Governance network** in all the participating countries by establishing the so called: Country Governance Committees;
- WP4 that aims at both **providing technical support** for development of the cost benefit analyses, as explicitly required by art. 14 of the EED, and transferring the methodological and technical know-how developed in the WP 5 and in WP5 to the project partners (in particular the country teams of the involved regions);
- WP5 that have to design the working methodology in order to **guide and harmonize the plans implementation procedures** and, in particular a shared planning design procedure concerning the initial scoping phase, mainly oriented at i) analysing the SEAPs and similar local action plans developed in the participating countries, ii) a standard data collection framework and H/C demand evaluation methods as well as iii) the measures monitoring procedures.;
- WP6, in which **the plans will be actually developed**.

These four WPs will work in close coordination miming what it would be a correct planning procedure. The Country Governance Committees constituted in WP3 and composed by national and local authorities, key stakeholders will initially interact with the technical guidelines and procedures proposed by WP4 and WP5 in order to better adapt them to the local contexts and will then flank the plans development in order to seek the stakeholders consensus. At the same time WP4 and WP5 are propaedeutic to WP6.

On the basis of these general guidelines and in close collaboration with the WP3 Country Governance Committee, WP6 will **develop the actual plans in six pilot regions of each of the participating countries** in accordance with the countries specificities and requirements. These plans will constitute the preparatory documents, to be transposed at policy level by the legislative bodies of the participating regional competent authorities with timing and procedures independent from this project. Nonetheless, to ensure the actual implementation of the plans, the regional authorities participating to the Governance Committees will be asked to endorse them through the signature of a memorandum of understanding, to be laid out in agreement with the regional authorities themselves.

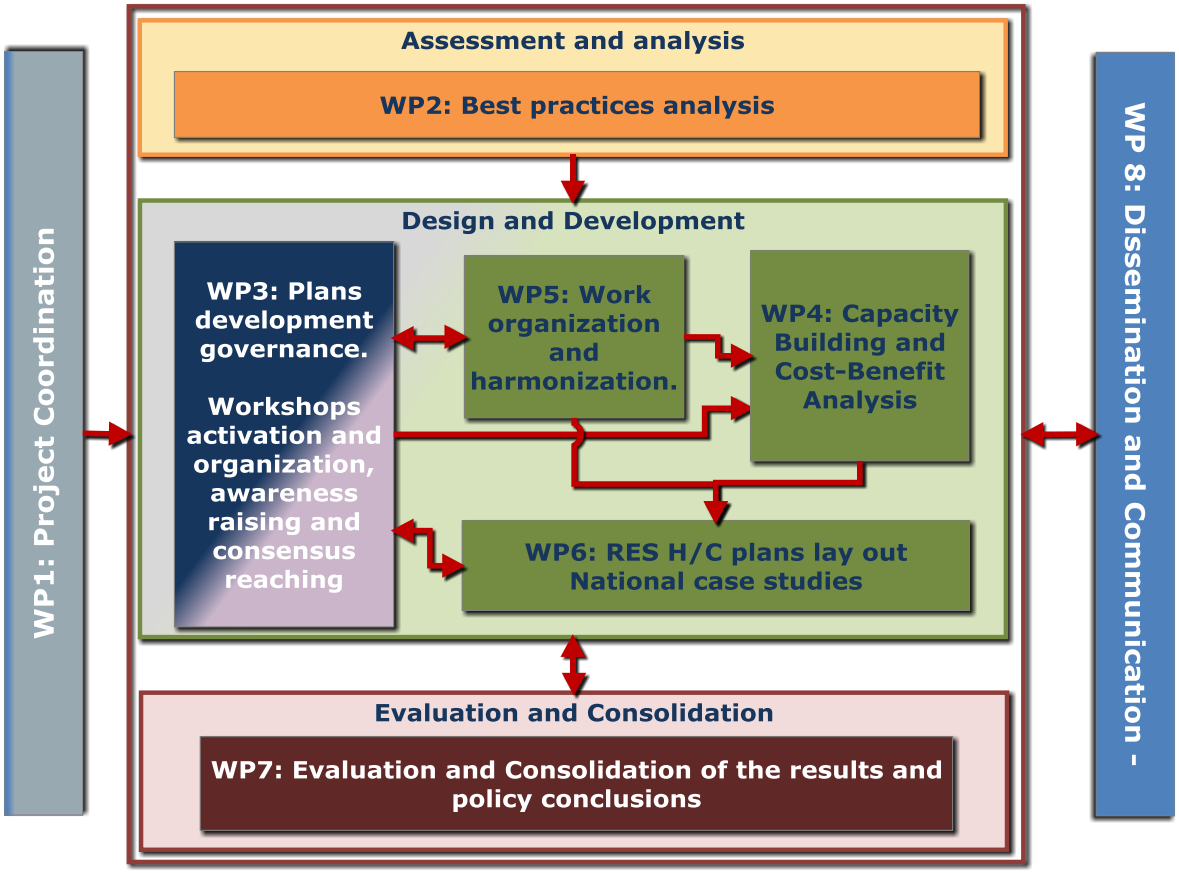
The results **evaluation and consolidation phase** is then constituted by one WP, that is WP7. This WP will thus critically evaluate, also in collaboration with the Governance Committee, the experience accrued by the countries working groups during the plans development phase, compare the developed plans in order to analyse their possible strong and weak points and eventually improve them. On the basis of this analysis this WP will finally consolidate the methodology drafted in WP 4 and WP 5 in order to **publish general guidelines on the plans development** in order to contribute strengthening the effectiveness of this practice at EU level.

To close this workplan overview, it is worth highlighting the activities to be carried out by the communication and dissemination WP (WP8). The WP objective is to promote the RES H/C SPREAD project to both actors and target users as identified previously and to ensure the highest possible visibility of the project at European and International level. The **dissemination** of the project results will take place **on both national level** in the state where the co-beneficiaries are established, **and** on the **international** level. In this way it will be also made accessible to **other energy agencies and state or regional authorities in other EU countries**, not taking direct part on the project. Results of the project need then to be promoted toward the policy key actors at governmental, European and national levels to ensure maximum sustainability beyond the project lifetime. It is, in addition, worth noting that the Country Governance Committee constituted in WP 3 plays a key role in this work package, in order to guarantee targeted dissemination activities within the networks of the policymakers and the stakeholders participating to these Committees.

None of the activities covered by this work programme are funded by any other EU programme.

b) Flow chart of your work programme:

The flow-chart below shows the connection between the WPs briefly outlined before



5.2 Work Packages

5.2.1 Work Package 1: Project Management

N° of work package: 1	Project Management
Duration in months: 30	WP Leader: ISIS

I. Description of the work:

a) Overview of the Work package:

Ensures overall project management and co-ordination within the project consortium as well as between the project consortium and the *Country Governance Committees,* ***CGC*** (see WP 3). The link between the project consortium will be assured by a subgroup constituted by representatives of the stakeholders involved in these GCs. This organizational structure will allow for intense consultation and dissemination at all levels.

The project coordination and management will run for the entire duration of the project (M1 to M30) under the responsibility of the *Project Coordinator (**PC**)* (ISIS).

The *PC* is supported by the *Project Steering Committee (**PSC**)* composed by all WP leaders and representative project partners. The *PSC* will meet **6** times over the project lifetime: *PSC* meetings are moderated by the *PC*, who is also responsible for drafting and circulating the minutes of each meeting. The PC together with the PSC will lay out a contingency plan to be initially set and discussed during the project meeting and then circulated for approval in form of internal deliverable (not public).

WP leaders are responsible for all activities of their respective Work Packages. They are in charge of planning, monitoring and timely delivering according to the Workplan. In addition, they will ensure smooth and prompt communication flows between the partners involved in each WP and between these partners and the Project Coordinator.

All partners share the same obligations of ensuring a timely and effective implementation of their tasks and provide all the activity and financial reporting as requested by the *PC*.

The *GC* representatives group will meet at least three times over the project life time and, as already outlined, will constitute the liaison between the country GCs constituted in each participating country and the project consortium. This group will:

1. Report on progress in the confrontation between local stakeholders and the plan developers discussing the possible problems met and the suggested solutions and ii) discuss the project recommendations and support the achievement dissemination to the national and local target audience authorities;
2. Collaborate with the PSC in order to guarantee that the methodology improvements resulting from WP4 and WP5 and will allow a successful implementation of the plans development (WP 6).

b) Description of the tasks:

Task 1.1: Administrative and operative management. Task leader: ISIS

This task concerns all the contractual and administrative issues required by the **RES H/C SPREAD** project:

1. Ensuring the day-to-day, operational management of the project activities;

2. Ensuring that timely and effective communication is maintained within the Consortium, between the Consortium and the Commission, as well as between the Consortium and external bodies not involved in the project as partners;
3. Establishing, finalizing and managing all contractual arrangements arising from the progressive implementation of the Workplan;
4. Administrating the financial resources of the project, in conformity with the rules and procedures set out by the Commission to this effect, and, in particular, ensuring that all payments, including reimbursement of travel and other expenses, are promptly forwarded to all involved;
5. Supervising the organization and implementation of the coordination meetings and other events planned throughout the project lifetime.

The administrative and operative management of the project is carried out by ISIS as Project Coordinator, with the involvement and collaboration of all partners.

In order to manage the project at an organizational, financial and decision-making level, a Project Steering Committee *(PSC)* will be set up among partners. The *PSC* will meet 5 times, in addition to the project kick-off (held in Rome during the 1st month of the project, duration one day), with venues rotating at partners´ headquarters. The PSC meeting plan is then the following:

First PSC meeting	To be held in Vienna at the beginning of WP4 and WP5 (month 6). Expected duration: 2 days
Second PSC meeting	To be held in Athens possibly after the 2 round of the GCs workshops. It is envisaged a half day of training (WP4) and the participation of the GC representatives. Expected duration: 2 days
Third PSC meeting	To be held in Riga at midway of the plans development and after the third round of the GCs workshops. It is envisaged half day of training (WP4) and the participation of the GC representatives. Duration two days
Fourth PSC meeting	To be held in Sofia near the end of WP6. It is envisaged the participation of the GC representatives. Expected duration: 2 days
Fifth and final meeting	To be held in Brussels or Valladolid). It is envisaged the participation of the GC representatives. The expected duration is of 2 days: the first day will be dedicated the finalization of the project activities while the second day will be used to illustrate the project achievements to EACI

In addition to these meetings, one more meeting is foreseen the beginning of the project for the CO training

During the kick-off meeting the partners will validate the various steps of the work programme, the project management set up and the deadlines, to ensure that the objectives of the project as well as its expected impacts, especially on environment, are actually archived. A detailed review of all steps and tasks of the Workplan as well as a detailed project activities scheduling will be carried out with the contribution of all partners, in order to reach full consensus about how the project will concretely develop, the deadlines and milestones and the role and responsibility of each partner.

During the *PSC* meetings the project progresses within each Work package and Task will be reviewed and the project schedule will be updated to deal with possible deviations with respect to the initial project plan. The Project coordinator will ensure that all relevant documents pertaining to the PSC are promptly circulated through the website among all partners.

The contractual periodic reports and the final reports will be issued within this task.

Task 1.2: Technical management and risk management. Task leader: ISIS

This task will ensure at the coordination of all the technical activities of the project, and will notably:

1. Ensure the quality control of outputs, results and deliverables;
2. Guarantee the appropriate level of consistency and integration of all project activities.

The Work Package leaders will supervise, evaluate and assure the technical progress of the work provided into the several Tasks with particular attention to the central tasks of this project (from WP 3 to WP 6).

During the ko meeting it will be faced the issue concerning a possible contingency plan to be undertaken in case of critical delay in some of the project activities (especially those concerning the field tasks). On the basis of the outcome of this discussion the project coordinator will then lay out a formal contingency plan document that will constitute an internal (not public) deliverable for the project partners and the technical officer.

1.3: Project liaison. Task leader: ISIS

The internal and external relationships will be assured throughout the project by the project coordinator: ISIS will accordingly establish and maintain all relations among partners that are required for the timely implementation of the Workplan and will ensure that the consortium is continuously kept updated concerning the progress of each activity. The project coordinator will also act as a bridge between partners and the European Commission.

It will be the role of the coordinator, in liaison with the project partners, to follow - up the **synergie**s that may exist **with other IEE projects and national and EU initiatives** and to encourage sharing of the RES H/C SPREAD results with these, e.g. other IEE projects on heating and cooling and projects working with public authorities and urban planners, in order to make the most of potential synergies. **Examples of relevant projects** include SmartReflex and STRATEGO. Information will be exchanged on the progress achieved with relevant projects, the obstacles faced and the solutions found. Every effort will be made to harmonise the methodologies and glossaries, and to co-operate in the dissemination activities to ensure the highest possible impact. Project consortia will also make all possible efforts to organise joint events rather than separate events.

In particular:

- **partner Regional agency for environmental protection in Emilia-Romagna Region** will ensure that a continuous coordination and liaison with the Italian partner, ANCI ER (regional association of Municipalities of Emilio-Romagna), of the IEE project SmartReflex takes place throughout the duration of the project. These coordination activities should aim to avoid overlaps and to take advantage of potential synergies among the activities of both projects. The nature and outcomes of these coordination activities as well as and its outcomes will be reported by this partner in the progress, interim and final reports.
- **assistance** will be provided to the partner Regional agency for environmental protection in

Emilia-Romagna Region **via the subcontractor** ANCI-ER. The scope and nature of the activities finally undertaken by the subcontractor ANCI-ER will be documented in the reports to the EACI to ensure that there is no overlap with the activities that ANCI-ER carries out as part in other IEE projects, e.g. SmartReflex.

- All **activities regarding the heating and cooling mapping** will be coordinated with the Coordinators (and partners) of the project STRATEGO which plans to undertake extensive and detailed work on mapping of heating and cooling demand and supply sources across different regions in the EU. This affects in particular, although not only, activities in WP6

The activities above will be reported in the progress, interim and final reports.

IIa. Outputs of this work package (apart from deliverables):

The management structure devised for the project will ensure:

O.1.1 Efficient and effective project management on all project levels;
O.1.2 Timely information on project progress and resources;
O.1.3 Clear delegation of tasks and responsibilities;
O.1.4 Necessary control and co-ordination between tasks;
O.1.5 A contingency plan;
O.1.6 Clear communication lines within the consortium and with the EC;
O.1.7 Organization and participation of project management meetings.

IIb. Deliverable(s) of this work package:

Three periodic reports as follows:

D1.1 Publishable Result-Oriented Report (M30)

One internal deliverable:

D.1.0: Contingency plan (M2)

III. Distribution of tasks of each partner in this work package:

Partner	Task(s) of this partner organization	Related to Task N°
ISIS	WP leader (coordinator) Preparation and participation to the coordination WPs Preparation and participation to phone conferences Preparation of the progress, interim and final reports Preparation of the final publishable report	1.1; 1.2; 1.3
All partners	Administrative and operative management Preparation and participation to the coordination WPs Contribution to the preparation of the progress, interim and final reports	1.1; 1.2

Major other specific costs:

Accommodation and catering costs for the project meetings. These costs are allocated to the following partners: ISIS (ko and last meeting), CRES, EKODOMA, BSERC, AEA.

Not envisaged for this WP

Work Package 2

N° of work package: **2**	**Best Practices Analysis**
Duration in months: **6**	**WP Leader: AEA**

I. Description of the work:

a) Overview of the Work package:

The objective of this work package is to **identify and examine good practice examples of effective measures and strategies for the promotion of RES H/C in different MS**, which can be transposed into other contexts. On the one hand, experiences at both national and regional level in various MS will be collected and analysed. In addition, an in-depth analysis of the RES H/C policies implementation status in the participating countries will be conducted. As part of this analysis, a screening of policies and legislative measures, instruments and activities at national and local level within the framework of the NEEAPs and NREAPs will be undertaken. It is worth noting here that the NREAPs will be collected and analysed especially for what concerns their targets, policies and possible synergies with national plans by WP2 but, after, they will be further critically cross analysed by WP5 in order to evaluate their strength and weak points (see WP5, task 5.1).

The good-practice examples (for instance: policy instruments and mechanisms, evaluation methods, innovative business models, monitoring procedures,…) will be documented and examined in order to **extract lessons** that will be incorporated into the development of the RES H/C plans at a later stage. In doing so, care will be taken of the fact that RES H&C markets are primarily local markets. As a result, each market may require different, customized policy approaches suited to local conditions.

It is moreover important to add that the good practices in this WP will be selected on the basis of fair and transparent criteria and procedures, which should prevent unnecessary market distortions. The criteria applied will be described in the reporting to the EACI.

This WP is led by AEA. Other partners in the consortium will contribute to provide information about good practices in their respective countries, to fill out questionnaires and conduct interviews with key stakeholders in their respective countries. This information will be processed and included into the analysis of good practice examples, from which lessons will be derived. These lessons, in their turn, will be incorporated into the design of the regional RES H/C plans in the course of the project and communicated to the members of the governance committees foreseen in WP3. Therefore, it is important that at least one partner from each participating country is involved. This will facilitate the process of using lessons learned and good practices in the following phases of the project.

b) Description of the tasks:

Tasks:

Task 2.1: Development of criteria for screening. Task leader: AEA

Development of a set of criteria for screening and evaluating good practices. Measures will be examined according to, among others:

- geographical scope,
- target groups,
- legislative and financial instruments applied,
- synergies between RES policies/technologies and energy efficiency policies/technologies,
- key lessons learned, etc.

Task 2.2: Development, dissemination and evaluation of questionnaires. Task leader:
Development, dissemination and evaluation of a questionnaire and interviews to key stakeholders (see i.e. chapter 4 on the target users) at the national and regional levels in the countries involved in the project. Dissemination and evaluation of questionnaires to selected stakeholders in other EU countries and at the EU level.

Task 2.3 Documentation of good practices. Task leader: AEA
Specific attention will be paid to innovative financial instruments that are able to support RES H/C, while making the most effective use of the reduced budgets available under current economic conditions of the EU. Since RES H/C investments may compete with energy efficiency investment, case studies will pay attention to the identification of renewable H/C policies and measures also addressing energy efficiency in order to avoid over-subsidization. In the case of RES heat, a differentiation between infant markets and those markets already consolidated will be undertaken. In addition, good practices will be specifically screened for insights into innovative business models that address financing and up-front investment barriers. These insights will be used as input into the formulation of the RES H/C plans in later phases of the project.
This task will produce the deliverable 2.1

The countries from which best-practices will be selected will be identified in the course of the analysis A preliminary list of countries that could potentially contribute to the provision of data and information for this task are Germany, France, Spain, Italy, UK, The Netherlands, Denmark and the Baltic countries. However, it remains to be examined, whether success stories in these and/or other countries can be identified and whether they could be meaningfully transferred to the countries in which the project will be undertaken. Therefore, this list cannot be considered definitive. It is not possible to provide in advance a list of other countries have already accrued and are willing to transfer some meaningful experience in this field**. A minimum of 5 best practices will be produced per country**.

Task 2.4 Lessons learned and synthesis. Task leader: AEA
Extraction of lessons learned and synthesis of good practices that can be transposed to other contexts. Development of factsheets and other materials that can be used in the development of the RES H/C plans in the participating countries and communicated to the members of the country governance committees and other stakeholders as appropriate.
This task will produce the deliverables 2.2 and 2.3.

IIa. Outputs of this work package (apart from deliverables):

The main output of this work package is an overview of good-practice examples that can be useful in the formulation of the regional RES H/C plans in the participating countries.

IIb. Deliverable(s) of this work package:

- D2.1 Report of compilation and analysis of good-practice examples of RES H/C policies and measures including an executive summary emphasizing lessons learned (T2.3). (M4)
- D2.2. Factsheets of good-practice examples for public dissemination (T2.4). (M6)
- D2.3 Report containing an in-depth analysis of the RES H/C policies implementation status in the participating countries: screening policies and legislative measures, instruments and activities at national and local level within the framework of the NEEAPs and NREAPs, (T2.4). (M6)

III. Distribution of tasks of each partner in this work package:

Partner	**Task(s) of this partner organization**	**Related to Task N°**
AEA (AT)	WP management and analysis of the EU good practices in accordance with the tasks description Input to the questionnaire and collaboration to the best practices analysis ((including the local SEAPs) for Austria	Tasks 2.1 – 2.4.
CTI (IT)	Collaboration to the questionnaire design especially for what concerns the technologies used in the EU measures and policies	Task 2.2
ISIS (IT), ARPA ER	Input to the questionnaire and collaboration to the best practices analysis for Italy. Peer review of the deliverable 2.3 Arpa will focus its work on the regional best practices analysis and the local SEAPs	Task 2.3, 2.4
CRES (GR), ANKO	Input to the questionnaire and collaboration to the best practices analysis for Grece. Peer review of the deliverable 2.3 ANKO will focus its work on the regional best practices analysis and the local SEAPs	Task 2.3, 2.4
EKODOMA (LV), RPR	Input to the questionnaire and collaboration to the best practices analysis for Latvia. Peer	Task 2.3, 2.4

	review of the deliverable 2.3 RPR will focus its work on the regional best practices analysis and the local SEAPs	
BSERC (BG), ARM	Input to the questionnaire and collaboration to the best practices analysis for Bulgary. Peer review of the deliverable 2.3 ARM will focus its work on the regional best practices analysis and the local SEAPs	Task 2.3, 2.4
EREN (ES)	Input to the questionnaire and collaboration to the best practices analysis (including the local SEAPs) for Spain. Peer review of the deliverable 2.3	Task 2.3, 2.4

Major other specific costs:

No major costs are envisaged for this WP

Major subcontracts

No subcontracts are envisaged for this WP

5.2.2 Work Package 3

N° of work package: 3	**Planning Governance**
Duration in months: 25	**WP Leader: CRES**

I. Description of the work:

a) Overview of the Work package:

The aim of this WP is to accompany and **support the constitution of permanent Country Governance Committees in each participating country**. These Governance Committees will be constituted by the main state or regional actors involved in the RES H/C plan implementation like, for instance: national and/or regional and local authorities, electricity and gas authorities, representatives from the business and production world, citizens associations. The fulfilment of WP3's aim will be performed mainly through the organization and implementation of workshops in order to establish and activate the country Governance Committees in each participating country separately. The workshops purpose is to increase the awareness of the participating policy makers and stakeholders and **reach** their **consensus** to both the **plans design and implementation** phases. The workshops organization is structured to work in close connection with the WPs concerning the methodological approach and implementation phases of the plans (WP4, WP5 and WP6) in order to maximize their operational effectiveness. The outcome of these workshops will be presented and discussed in the PSC meetings by the PP in order to highlight and identify potential problems, suggest possible solutions, evaluate the project recommendations and support the dissemination actions. In the final PSC meeting, which will be organized back to back with the final workshop, also representatives of the country Governance Committees will participate in order to give their feedback and experience from project implementation.

b) Description of the tasks:

WP3 consists of the 4 different tasks, which are described analytically in the following paragraphs:

Task 3.1. Network activation and constitution of the National Governance Committee. **Task leader: CRES**

Each country leader (AEA, BSERC, EKODOMA, EREN and ISIS) in collaboration with the regional organization participating to the project , has to identify all target groups and key actors in order to establish the Country Governance Committees (CGC). These committees will lead to the establishment of a network with representative stakeholders at national and/or regional and local scale, so that the participating policy makers and stakeholders, being informed about the proposed methodology for the development of RES H/C plans, might contribute to the enhancement of the proposed methodology as well as to the plans development and implementation in each participating country. From the organizational point of view the country leaders will appoint a responsible to follow the CGCs activities representing the project purposes and interests. The project leader will, as far as possible, follow by close the Committee activities, also directly participating to some of their meetings (see task 3.2)

The task support to this basic starting activity will be to:

i. Provide simple general guidelines and recommendations for the Governance Committee

setting (also on the basis of the best practices and experiences on this specific topic gathered by WP2)

ii. Directly assist the participating countries in this crucial phase and organize a webinar to facilitate the exchange of experience and suggestions

iii. Set a protocol of communication among the Committees and the project consortium in order to make more effective the transfer of the corresponding information and outcomes.

This communication protocol has been envisaged to have, as far as possible, homogeneous and consistent transmission of data and information between the countries CGCs and the WP leader. This might concern the type of information to be delivered and the format with which this information will have to be delivered. For example it will be asked to the country leaders to prepare the minutes of the workshops according to an homogeneous format (i.e.: agenda of the meeting, participants, resume of the previous meeting, discussion held within each point of the agenda, conclusions, next steps) an din accordance with a specific time plan, which must be followed from each participating country after the end of each round of workshop. The agendas themselves will be set up by CRES in agreement with the country leaders. This procedure will easy the CRES comparative and cross cutting analysis of the CGCs outcomes and the further input/recommendation of CRES to the CGCs. After the implementation of each round of workshops from all the participating countries, a webinar will organized by CRES with the participation of all CGC' leaders and the PSC in order to clarify any potential problems and to summarize the main conclusions, which will be proved valuable to the implementation of WP5 and WP6.

Moreover, CRES will undertake the implementation of tutorial sessions with the partners from the participating countries with specialized webinars in order to reassure the required level of quality during the preparation, conduction and run of the workshops. Two webinars in total will take place, one before the implementation of the 1st round of workshops and the second one before the implementation of the 2nd round of workshops (see also the activity schedule at paragraph 5.3).

The following is an **example on how the CGCs might be organized**:

Austria: country leader AEA

Regional level

- Representatives of the energy economics and advice division (Energiewirtschaft und –beratung) from the Salzburg regional government
- Representative from the regional energy supplier Salzburg AG
- Representative from the e5 network in Salzburg (e5 is the program for energy efficient municipalities in Austria)
- Representative from the regional coordination of the climate alliance in Salzburg (Regionalkoordination Klimabündnis Salzburg)

Local stakeholders

- Representative from the Austrian biomass association

National level

- AEA: the agency will participate in the CGC once provided the agreement with the regional government in Salzburg

Bulgaria: country leader BSERC (the Bulgarian CGC will be further reinforced during the project)

Regional level

- Sustainable Energy Development Agency (SEDA)

Local level

- National Association of Municipalities of the Republic of Bulgaria (NAMRB)
- Mayors of Municipalities, members of ARM (project partner)

Other stakeholders

- Association of Renewable Energy Producers (AREP)
- Association of District Heating Companies (ADHC)

National level

- Ministry of Economy and Energy (MEE)
- Ministry of Regional Development (MRD)

Greece: country leader CRES

Region of Western Macedonia: Area in which the plan will be examined and developed

- Example of main participants:

- *Ministry of Environment, Energy and Climate Change:* Leader of the CGS. Responsible for the coordination of CGC and for undertake any obstacle that could arise in the implementation phase of the project, in order to ensure project success.
- *Representatives of Regional Authority:* Contribution to the understanding of region needs concerning the scope of the project. Transmission of the difficulties that could arise from the project implementation, in order to be solved by the CGS. Better dissemination of project benefits to local stakeholders for the best reception.
- *Representatives of local citizens:* Better understanding of the project and better reception of it.
- *Municipalities participating in the Covenant of Mayors:* Representatives of other Kozanis and Florinas municipalities that participating in the Covenant of Mayors committee in Greece, which could use the outputs of the project and disseminate them in regions all over Greece, in order to be applied in other regions, too. Comments concerning how the outputs of the project could be applicable in their regions, taking into account their possible peculiarities.
- ANKO SA (partner): Support of RES H/C plan development in Western Macedonia Region,
- *Representatives from RES associations:* To be determined afterword a better examination of RES technologies that can be applied in the selected region.
- Local business operators: ie Municipal District-heating Company of Kozani
- CRES: Participation in GSC. General supervision of the CGC. Transmission of the information that comes up from project implementation and suggestions for better understanding of the scopes of the project.

Italy: country leader ARPA

Regional level

- ARPA ER (partner of the project and coordinator of the committee)
- Emilia-Romagna Region (representatives of Energy and Green Economy department, responsible for the development of Regional Energy Plan)
- Emilia-Romagna Region (representatives of Environment Department, responsible for assessments related to Directives 2001/42/CE and 2011/92/UE)

Local level

- ANCI Emilia-Romagna (regional section of the National Municipalities Association, responsible for supporting local authorities in the Covenant of Mayors and SEAP process and for involving local municipalities in the committee's work)

Local stakeholders

- Representatives of multi-utilities operating in the region (Hera, Iren)
- Representatives of Legambiente and other Environmental Organisations
- Representatives of local Universities (Bologna, Modena and Reggio Emilia, Ferrara)
- Representatives of Local Energy Agencies (e.g. AESS, Energy and Sustainable Development Agency of Modena Province)

National level

- ENEA, Italian National Agency for New Technologies, Energy and Sustainable
- Economic Development (representatives from Studies and Strategies Department, ensuring a proper link with the Italian Economic Development Ministry and the Environment Ministry)

Latvia: country leader EKODOMA

Regional level authorities:

- EKODOMA (partner of the project and coordinator of the committee)
- RPR administration (regional partner, the main coordinator for municipalities from RPR)

National level authorities:

- Ministry of Economics (responsible for adaption of NREAPs and NEEAPs):
  - Department of Renewable Energy and Energy Efficiency
  - Department of Construction and Housing policy (responsible for implementation of art 14.)

Local level authorities:

- Representatives of the main municipalities in Riga planning region. In total there are 30 municipalities. All responsible for the implementation of Regional Development Strategy.
- Riga Energy Agency (responsible for the development and implementation of SEAP for city Riga)

Local Stakeholders:

- Representatives of local district heating companies – information provider regarding the heat demand of the local district heating and the opportunities to use REA for energy production
- Representatives of Housing management companies

Spain: country leader EREN

Regional level

- Representatives from the Economic and Employment Regional government. one representative of Economical &European issues one from the Energy issues) in Castilla y León.
- Representatives from Urban planing & Environmental Regional Minister.
- Representatives from University and/or other regional technological centers.

Local level

- Representatives from the Diputaciones (provincial level).
- Representative of the Federation of Municipalities and Provinces.
- Representatives of Local Energy agencies in Castilla y León: AEMVA, AGENBUR, APEA.

- Chambers of commerce.

Local stakeholders

- Representatives of Local Energy agencies in Castilla y León: AEMVA, AGENBUR, APEA.
- Representatives from the 9 Diputaciones (provincial level).
- Utilities
- Representatives from Municipalities with SEAPs and or involved in the Covenant of Mayors.
- Representative from the Smart cities in the Region.
- Representative from AERIS-Cluster of sustainability. Representative from CYLSOLAR - cluster of renewable energies.
- Representative from AEICE- building association.
- Representatives from industrial association or industrial areas.
- Rpresentative from Consumers association.

National level

- IDAE , Spanish National Energy Agency.
- Eneragen, Spanish Association of Energy Agencies.
- ANESE-national Association of Escos.
- RECI- Spanish net of Intelligent Cities.

This task will provide the deliverable D3.1 D3.2 and D3.3

Task 3.2. Preparation and Implementation of workshops and creation of networks. **Task leader: CRES**

Workshops will be the main tool for the functioning of the appropriate networks of stakeholders, which will constitute the Country Governance Committees.

Subtask 3.2.1 *Preparation of workshops*

For the conduction of successful and effective workshops, CRES will develop support guidelines after collaboration with Project Steering Committee. The aim of having these guidelines is to achieve common results among the participating countries and will concern the following basic aspects:

i. Common template for the agenda settings (there will be some common points to be discussed in order to achieve common results)
ii. Common templates for the minutes lay out, also based on the Committees communication protocol
iii. Workshops evaluation forms
iv. Contingency actions to involve stakeholders that can't participate to the workshops
v. Questionnaire to be filled by the PPs in order to collect the appropriate information from the workshops
vi. Common templates for final country-side reporting

Sub task 3.2.2 Workshops Implementation

Beginning with the Country Governance Committees, the **phase of the implementation** of the workshops includes three different rounds of workshops (see the workshop timetable below).

The 1st round of the workshops will deal with the inputs received from WP5 regarding the

methodology for the development of RES H/C plans. Thus, the discussions made in the 1st round of workshops will be in a theoretical level (meaning that: the involved stakeholders will give their feedback on the working methodology, the guidelines, the monitoring methods etc.). To this end one meeting per participating country will be performed during the 1st round of the workshops. This meeting will be held at the end of WP 5 (months 10-11).

The 2nd round will focus on the inputs received from WP6 regarding the implementation of RES H/C plans. Specifically, two workshops will deal with the implementation of the proposed methodological approach into case studies, which will lead to the development of local RES H/C plans. The stakeholders will assess the plans, which will be developed in WP6, having the opportunity to analyse the results of the cost benefit analysis carried out in this WP (see WP6, task 6.1, step 3) and the proposed policies/strategies for the plans roll out. . The main target is the achievement of the **consensus of the participating stakeholders regarding the plan**, which will be eventually developed.

The third round of workshops finalizes this meeting series, is focused to the final discussion and **agreement of the developed plans**, and has the scope to **pave the way to the policy transposition** of the plans themselves. One workshop per participating country, to be held immediately after the preparation of the regional plans is envisaged within this last round.

During this workshop the regional/municipal authorities participating to the will be asked to endorse an implementation plan (i.e. an implementation road map) agreed with them. It is in addition conceivable that the CGCs as a whole might agree to support this endorsement assuring its support (expressed in accordance with the different competencies of the committees members) to the plan implementation phase. The endorsement can be obtained through the signature of a memorandum of understanding having similar format and contents for all the participating countries. (see also WP6)

Timetable of workshops:

Workshop rounds	Workshop number	Implementation month	Linkage	Purpose	Duration
1st	1st	10-11	WP5	Starting of the CGCs, & Functioning rules Analysis of the methodologies for the development of the baselines	1 Day/ Workshop / country
2nd	2nd	16-17	WP5	Assessment and validation of the baselines	
	3td	19-20	WP6	Analysis of the strategies for the development of the RES H-C plans	
3rd	4th	23-24	WP6	Discussion and acceptation of the developed plans Endorsement of the plans implementation road map and signature of the Memorandum of Understanding	

Each country leader (see CGC composition at task 3.1) will be responsible for the conduction of the corresponding workshops for both of the two rounds and the required meetings.

Specifically, according to the guidelines of subtask 3.2.1, each country leader must be able to prepare the workshops, to select the stakeholders, to set up the workshops, to arrange the support facilities, to ensure all the necessary administrative issues and to organize all the events (in collaboration with the project leader)

In addition, the country leaders will take advantage of the key policy makers and stakeholders participating to the CGCs to organize and carry out targeted dissemination activities in collaboration with the WP8 leader (see WP8 task 8.7). To this end representative of external regions of the involved countries will be invited /asked to participate to the workshop in quality of observers.

CRES will reassure that the support services for the implementation of workshops in each participating country will operate with the most efficient way, and will monitor the progress concerning the implementation of the workshops. Moreover, CRES will provide technical support to each participating country in order to be able to confront any emerging problem.

Finally, to assure the proper coordination between the CGC activities and the whole project, the CGCs country leaders will meet four time over the project duration to exchange their experiences and the lesson learned from the management of the CGC workshops and then to discuss possible corrective actions. The CGC leaders meetings are held in conjunction with the project coordination meetings to allow the CGCs leaders to easily report on the progress achieved (but also problems, delays,…) to the Project Steering Committee. The WP leader will in any case assure a constant coordination among the country leaders through exchange of emails and, when required phone conferences.

This task will produce the deliverables 3.4, 3.5, 3.6, 3.7 and 3.8

Task 3. 3. Workshop Evaluation. **Task leader: CRES**

CRES will evaluate the workshops according to the corresponding evaluation procedure.

After the conduction of the 2 rounds of workshops, each participating country will provide a report summarizing the main findings, which were derived by the stakeholders using the templates provided by CRES in sub-task 3.2.1. These reports will contain results from both of the two rounds of workshops.

CRES will process the reports, which will be submitted after the finalization of the workshops by each participation country, which is responsible for the conduction of the workshop (see sub-task 3.2.2), will analyse the obtained results and will end up with a synthesis report presenting the main outcomes.

Main obstacles, which may had realized concerning the communication protocol of the CGCs and the exchange of information between the participants of the committees, and the ways that were solved, will be presented in the synthesis report. This outcome will be used as a guideline for solving possible same problems in future plans in National level of the participating countries or others countries beyond the project boundaries willing to set-up similar committees. These obstacles will be examined in combination to the peculiarity of each participating country (for example climate conditions, synthesis of the CGCs, number of citizens of the examined region, legislative status quo).

All this information will be summarized in the synthesis report and opportunely transferred to the Summary Fact sheet of WP7 in order to be used as a guide for future plans implementation in participating countries, and beyond them at European and International level through the dissemination activities described in WP8, task 8.7.

This task will deliver task 3.9

IIa. Outputs of this work package (apart from deliverables):

The outputs of the tasks, which will be carried out within WP 3 include:

O.3.1 The conduction of 24 meetings totally within the two rounds of workshops of the Country Governance Committees with the participation of 10 stakeholders at least for each participating country according to the corresponding guidelines (AEA, ISIS, CRES, BSERC, EKODOMA, EREN and the related regional agencies and associations).

O.3.2 Three workshops for the information exchange between Committees representatives and the project consortium (to be held in conjunction with the PSC meetings).

O.3.3 Webinars will be organized for the efficient training of the partners from the involved countries (CRES).

IIb. Deliverable(s) of this work package:

D3.1: Recommendations for the establishment of the Country Governance Committees – CRES (T.3.1)(M3)

D3.2: List of CGC Partners - PSC (T.3.1) (M5)

D.3.3: Protocol of communication among the CGC and PSC –CRES (T.3.1) (M5)

D.3.4: Methodological and procedural approach for the organization and implementation of the workshops -CRES (T.3.2) (M5).

D.3.5: Minutes of 1st round of workshops-All countries (T.3.2)(M12).

D.3.6 Minutes of 2st round of workshops-All countries (T.3.2)(M18)

D.3.7 Minutes of the 3rd round of workshops-All countries (M21)

D.3.8 Minutes of the 4th round of workshops-All countries (M25)

D3.9: Synthesis report -CRES(T.3.3)(M 27).

III. Distribution of tasks of each partner in this work package:

Partner	Task(s) of this partner organization	Related to Task N°
CRES	Methodology for establishing the Country Governance Committees	Task 3.1
	Protocol of communication among the CGC and PSC	Task 3.1
	Questionnaire preparation	Task 3.2
	Preparation of workshops	Task 3.2
	Evaluation of workshops	Task 3.3
CRES, AEA, ISIS, BSERC, EKODOMA, EREN, ARPA ER, ARM, ANKO, RPR	Establish of CGCs,	Task 3.1
	Dissemination of Questionnaire	Task 3.2
	Implementation of workshops	Task 3.2
	Minutes of 1st and 2nd round on workshops	Task 3.2

Major other specific costs:

- General organizational and hosting costs x 4 workshop per involved country x 10 participants per workshop. Costs allocated to the following partners: CRES, EREN, BSERC, EKODOMA, AEA, ARPA E.R.
- Total costs T&A reimbursement per country. Costs allocated to CRES
- Travel cost to invite external people to participate to the national CGCs. Costs allocated to: ISIS, EREN, AEA, ARM, ANKO, RPR

Major subcontracts

No subcontractors envisaged for this WP

5.2.3 Work Package 4

N° of work package: 4	Capacity building and cost-benefit analysis
Duration in months: 9	WP Leader: CTI

I. Description of the work:

a) Overview of the Work package:

The aim of this WP is to flank the methodological work carried out in WP5 by **developing a specific guideline on the cost-benefit analysis procedures and to provide enhanced technical skills to the technical staff of the regional/municipal energy departments** in order to develop robust and viable regional/municipal actions plans in the framework of the Energy Efficiency Directive (EED).

Actually EED requires Member States to adopt policies which encourage, at local and regional level, the use of efficient H/C systems. In order to achieve this goal, Member States have to carry out a cost-benefit analysis of different scenarios, taking into account technical, socio-economic and environmental factors.

In accordance with the general principles of Annex IX of EED, this analysis can essentially divided into three parts/steps: *(i)* mapping of the supply; *(ii)* mapping of the demand and *(iii)* cost-benefit analysis finalized to identify the optimal technical solutions for the maximization of the efficiency in H/C in economic terms.

In the project these steps of analysis will be delivered by WP6 in terms of:

- regional supply and demand maps on the heating and cooling renewables (including low enthalpy heat)
- as well as the impact and cost assessment of the selected implementation actions.

To this end WP6 will benefit of

i) the methodological input from WP5 mainly for what concerns the setting of the supply side data collection and the methods to evaluate the heating and cooling demand and
ii) the technical input from WP4 for what concerns the cost benefit analysis.

WP4 will be thus structured in two tasks: T. 4.1 that will deliver the cost-benefit analysis guidance and handbook with applications on real case studies/examples identified within the involved regions and T.4.2 that will deliver training sessions to the project members based on the methodological and technical documentation produced in WP4 and WP5.

b) Description of the tasks:

Task 4.1 Methods and procedures for cost benefit analysis (CTI)

In the framework of this project, cost-benefit analysis is addressed in particular on the possible technical solutions for the integration of the renewable energy supply resources with the demand of energy, also considering waste heat and renewable sources. For this purpose, it will be developed a methodology that will provide a procedure for:

i. identification of alternative scenarios (different technical solutions);
ii. their cost-benefit analysis in order to identify the optimal ones.

The methodology will also consider how renewable energy sources and waste heat can be used to

satisfy part of demand of energy. Concrete example for the application of this methodology will be selected within the involved regions in collaboration with the country leaders. To this end specific Excel based calculation tools will be developed.

The task will thus deliver a methodological and procedural handbook structured in training modules (including the Excel calculation tools above mentioned) do be delivered to the project partners (see T.4.2). The handbook, that is initially addressed to the project partner, will be re-edited in WP7, taking into account the lesson learned during its use in the project, and then addressed to a wider public beyond the project boundaries.

This task will produce the deliverable D4.1

Task 4.2 Capacity building (CTI)

The capacity building activity is addressed to the partners participants (but other local authorities can freely join upon the involvement of the partners, if interested) and will include the methodological and procedural topics covered in both WP4 and WP5:

- From WP4: cost benefit analysis
- From WP 5: data collection methodology on the supply and demand side, methods for energy demand estimation

The training session will be delivered in four webinars (half day each) and in two half-day classroom sessions during the project coordination meetings. The first two webinars and the first classroom session will mainly dedicated to the methodological and procedural documentation worked out in WP5 and will be held before the starting of WP6 while the last two webinars and the last classroom session will be dedicated to the cost benefit analysis and will be held duringWP6 (in principle after the demand and supply mapping has been carried out). As outlined in the T.4.1 description the WP6 partners will be asked to suggest and describe specific case studies beforehand the starting of the training sessions in order to apply the cost-benefit methodology to concrete examples.

A summary report on the training activities carried out, putting in evidence the experience accrued and the lesson learned (to be transferred to Task 7.1) will be delivered at the end of task T.4.2.

In addition it is worth noting here that a careful assistance to support the partners involved in the plans development will be assured by the WP4 leader throughout the course of WP6 (i.e. mainly with exchange of bilateral emails and/or the distribution of clarifications to all the WP6 partners, when required)

This task will produce the deliverables D4.2 and 4.3

IIa. Outputs of this work package (apart from deliverables):

- O.4.1: Delivering of a cost-benefit analysis guidance and handbook with applications on real case studies/examples identified within the involved regions
- O.4.2: Capacity building of the local authorities and local energy/environmental agencies to empower their capacity to carry out robust analysis on the integration of the territorial energy supply resources with the local demand of energy

IIb. Deliverable(s) of this work package:

D4.1: Handbook on cost benefit analysis with Excel based exercises and examples(M9 preliminary draft, M11 final) ;

D.4.2: Training sessions: 4 1/2 day webinars and two 1/2 classroom sessions (M 12 – M16)

D.4.3: Report on the training sessions (M18).

III. Distribution of tasks of each partner in this work package:

Partner	Task(s) of this partner organization	Related to Task N°
CTI	WP and task leader.	4.1, 4.2
ISIS	Collaborates with CTI in revision of the cost-benefit handbook and the delivering of the training sessions	4.1 and 4.2
All the other partners	Assist to the webinars and the classrooms organized by CTI. Provision and description of ad hoc case studies to be used as examples during the training sessions	4.2

Major other specific costs:

No other specific costs are envisaged in this WP

Major subcontracts

No subcontractors are envisaged in this WP

5.2.4 Work Package 5

N° of work package: 5	**Work Organization and Harmonization**
Duration in months: 8	**WP Leader: ISIS**

I. Description of the work:

a) Overview of the Work package:

This WP, together with WP4, paves the way for the subsequent plan development phase. To this end it will on one side i) produce a **draft guideline to define and frame a common baseline for the plans development and monitoring** and, on the other side, ii) agree the proposed methodology with the National Governance Committee constituted in WP3 in order to seek their consensus and take care of their suggestions.

This WP will work in parallel to WP4 in order to assure a robust set of methodological and quantitative tools to the partners involved in the plans development and, in particular, to the involved regional/municipal authorities and local energy/environmental agencies. This methodological guidance should allow, in addition to the best practice and policies analysis provided by WP2 and the support provided by the Governance Committee, the involved partners to deliver effective, incisive and robust plans so that to convince the regional authorities making part of the CGCs to support their actual implementation (see WP6).

The draft guideline produced by this WP will then contain the following main points::

- A SWOT **analysis of the SEAPs** and equivalent local energy plans carried out in the participating regions in order to provide a clear grid of analysis to the regional planners to evaluate the possible synergies to harmonize the local plans with the regional ones.
- A **template for data collection** on the RES and low-enthalpy heat availability as well as on the procedures for the heating and cooling demand evaluation in order to build a solid RES H/C supply and demand reference framework and support the partners involved in WP6 to develop the territorial H/C supply and demand maps .
- Procedural and methodological suggestions to **set an effective and permanent monitoring activity**

b) Description of the tasks:

Task 5.1: Support to the Analysis of the regional Sustainable Energy Action Plans (SEAP). Task leader: EKODOMA in collaboration with ISIS

This task refers to the first step of the plan development sequence outlined in the following WP6. Here the task leader will carry out a SWOT analysis on the SEAPs and the equivalent local energy plans collected and ordered by WP2. The scope is to provide a grid of analysis of the SEAPs (and similar plans) produced in the partners regions to highlight possible synergies on the use of the resources, maximize the RES availability minimizing the land use, better highlight the, somewhat hidden, RES demand basins, identify the main involved actors, and target users. It will be also taken into account possible interactions of these plans with the other municipal programming activities

The achievements of this task will be reported in a deliverable that will both contribute to the setup of the data collection methodology carried out in T.5.2 (especially for what concerns local data already collected and the data sources that have been used) and to the first step of the data collection phase in WP6. The deliverable is of internal use but its main achievements will be

reconsidered in tasks 7.1 and 7.2 in order to see to which extent the SEAPs can be harmonized in the regional plans and which reciprocal opportunities (municipalities vs Region) might rise from this harmonization.

This task will produce the deliverable D5.2

Task 5.2: Data collection procedures. Task Leader: CTI

The provision of a robust set of data on the RES H/C potential supply and demand is one of the main requirement of this strategic action and of this project. To this end it is necessary to define in advance (also referring to the EED, annex IX):

- What is meant by supply and especially, demand, potential (i.e. which renewable energy sources compose the supply side and which waste low-enthalpy heat sources are potentially usable, how the demand potential can be identified depending on the available renewable resource: not all the building can have biomass boilers, geothermal heat pumps or solar collectors).
- How to map the regional territory depending on the main heating and cooling demand sites. This will require the standardization of the demand on the basis of territorial information like: type of buildings (largely the main demanding points for H/C; i.e.: single or collective units); density of buildings; magnitude of energy requirements for heating and cooling which is a function of the average characteristic of the buildings, the industry and agricultural facilities that require low temperature heat and the climatic data (like the heating and cooling degree-days).
- How to estimate the demand dynamic in the next 10-20 years
- Which type of data have to be collected and in which form (punctual data, periodicity, historical series, etc.). To this end a specific questionnaire on the main national statistical/technical sources and their contents/updating, etc., will be laid out and transferred to that WP6 country teams.
- Which are the main reference sources (including those indicated in the questionnaire) and how to better estimate the data in case of lack of statistic references.
- How to calculate the specific energy demand (i.e. Joule/m2) for the type of buildings identified and the other typologies of commercial/industrial/agricultural H/C final uses. To this purpose, a first methodology covering the evaluation of energy demand for H/C that is mainly due to the seasonal heating and cooling of buildings for residential, commercial and industrial use will be developed. For this estimation, the methodology will be based on calculation compliant with the EN standards/methods (i.e. EN ISO 13790 and EN 15316 series) developed in the framework of the Energy Performance of Buildings Directive. The main characteristic of these standards is to be modular, flexible and easy to use. The calculation methods can be used with collected data or also with default/estimated data in order to assess the current and the future demand of energy. In this methodology also the use of on-site renewable energy is considered.

With reference to this last point, it is important to add that the demand evaluation methods will **include the cooling demand**, which is a remarkable issue for the European southern countries. The main cooling technologies will be evaluated (like i.e. waste heat/solar absorption chiller) taking into account their performances and cost effectiveness (see also below).

All these points will be formalized in a methodological guidance structured in several training modules in order to be easily transferred (see WP4) to the people in charge of the plans

development. In addition the guideline will include a section on the main RES heating and cooling technologies (demand and supply side) that can be used to recover, distribute/generate the thermal energy. Each technology will be described in terms of energy performances, cost-effectiveness characteristics and market/commercial level.

The guideline will be edited at the end of task 5.4 taking into account the monitoring procedures analyzed in task 5.3 and, in particular, the comments from the CGCs components (task 5.4 below)

Task 5.3 Development of the reference monitoring procedures. Task leader: ISIS

The WP leader, on the basis of the analysis carried out in WP2 on the best practices and the data available in the technical literature (including the achievements of IEE project dealing with these aspects), will lay out a methodology including techniques, administrative procedures and practices to carry out a permanent monitoring service once the plans will be implemented. It is hardly necessary to recall here the importance of a well performed monitoring activity to the plan/measures implementation to evaluate on robust basis its impact on the economic, energy and social point of view. To this end it will be identified the possible roles and responsibilities within the regional structure, the instruments to be envisaged in advance in the plan measures, the metering and or accountant systems to be implemented.

Task 5.4: Confrontation with the Governance Committees and lay out of the draft guidelines. Task leader: ISIS

One Country Governance Committee (CGC) workshop is envisaged over the overall duration of this WP in each of the participating countries, around the end of the WP. During these CGC workshops the draft methodological guidelines prepared within this task will be illustrated and discussed. On the basis of these reports and to take into account the possible remarks coming from the GCs an additional working months for this WP could be envisaged.

As outlined in T. 5.2, the draft guidelines will be assembled in this task on the basis of the achievements of tasks 5.2 and 5.3, discussed with the CGCs and then finally structured in specific training modules in order to start, immediately before the starting of WP6, with the training activities outlined in WP4.

The target audience of this draft guidelines are first the regional/municipal authorities and the regional/environmental agencies participating to the project. These draft guidelines will be then implemented and amended in WP7 in order to be addressed to the regional/municipal authorities and the regional/environmental agencies of the entire EU region.

This task will thus produce the deliverable D5.2

IIa. Outputs of this work package (apart from deliverables):

O.5.1 Provision of methodological tool to define the regional plans baseline (how to evaluate the demand and supply H/C potentials):

- SEAPs or equivalent local plans detailed SWOT analysis for each of the 6 participating country
- Data collection procedures for the supply and demand RES H/C potential evaluation

O.5.2 Discussion and confrontation with the involved stakeholders. Results and input from the 6 regional GC.

O.5.3 Standard procedures on monitoring methods and procedures.

IIb. Deliverable(s) of this work package:

D5.1: SEAPs (or equivalent plans) analysis in the involved regions (M 9)

D5.2: Draft guidelines to set the baselines for the RES H/C development and the monitoring procedures (M11)

III. Distribution of tasks of each partner in this work package:

Partner	Task(s) of this partner organization	Related to Task N°
ISIS	Development of the reference monitoring procedures and confrontation with the Governance Committees and lay out of the draft guidelines Collaboration with Ekodoma in the support to the Analysis of the regional Sustainable Energy Action Plans Collaboration with CTI in the supply/demand analysis	WP leader, and Tasks 5.1, 5.3, 5.4
EKODOMA	Support to the Analysis of the regional Sustainable Energy Action Plans	Task leader 5.1
CTI	Data collection procedures	Task leader 5.2
ARPA ER (with the support of ANCI, subcontractor), AEA, CERS, RPR, ARM, ANKO	Collaboration with Ekodoma in the support to the Analysis of the regional Sustainable Energy Action Plans,	Task 5.1

Major subcontracts

- ANCI ER (National Association of the Italian Municipalities):
  - Support to Ekodoma and ARPA ER to the Analysis of the regional Sustainable Energy Action Plans in Emilia-Romagna basing on the coordination and technical role plaid by ANCI in SEAPs (ANCI ER is an official SEAP supporter).
  - Provide fundamental policy support due to its crucial, pivotal, role between the needs of municipalities and the definition of strategies at regional level

  This subcontract will ensure that activities of ANCI ER do not overlap with activities that this organization undertakes in other IEE projects. Subcontract allocated to partner ARPA E.R.

The subcontractors identified will be selected following the provisions of Article II.9 of the Grant Agreement on competitive grounds on the basis of best value for money.

5.2.5 Work Package 6

N° of work package: 6	**Development of Regional RES H/C plans**
Duration in months: 17 (with interruptions)	**EKODOMA**

I. Description of the work:

a) Overview of the Work package:

This WP is one of the core activities of this project. The WP objective is to **develop the Regional RES H/C plans** by using the methodology and tools produced in other WPs. The RES H/C plans will be used as the case studies for the production of harmonized Guidelines to support local authorities and local planners to find the best solution among different technical choices to develop a heating and cooling local strategy. It is worth noting here that the aim of this WP is not to simply carry out a full-fledged planning exercise but rather to develop regional plans **that might be concretely implemented in the involved regions**. To this end, the plans will be developed in close contact with the regional authorities that are responsible for its implementation. To easy this communication and to concretely verify/discuss the operative proposals provided by the planning working groups, **a regional authority** (or equivalent figure) **will participate to the Country Governance Committees** (CGCs) to be organized and managed in WP3:

- **Austria:** an high level representative from the **Salzburg regional government** will be part of the CGC.
- **Bulgaria:** it will be involved a representative of the Sustainable Energy Development Agency (SEDA, responsible for EE and RES development in the country) and of the Ministry of Regional Development (MRD). In addition The Association of the **Rhodope Municipalities** (ARM), who is a partner in the project, will ensure that the project results will be conveyed to the councils of the respective municipalities.
- **Greece:** it will be involved an high level representative from the **region of West Macedonia** and from Ministry of Environment Energy and Climate Change
- **Italy:** it will be involved high level representatives from the Energy and Green Economy Department of the **Emilia Romagna Region**. The department is responsible of the layout and implementation of the regional energy plans and programs.

  It is worth noting to this end that partner Regional agency for environmental protection in Emilia-Romagna Region, as well as the project coordinator, ensure that a continuous coordination and liaison with the Italian partner, ANCI ER (regional association of Municipalities of Emilia-Romagna) in the framework of the IEE project SmartReflex will takes place throughout the duration of the project. These coordination activities should aim to avoid overlaps and to take advantage of potential synergies among the activities of both projects. The nature and outcomes of these coordination activities as well as and its outcomes will be reported by this partner in the progress, interim and final reports.

- **Latvia:** it will be involved the CEO's of **Riga Planning region** municipalities and a representative from the Ministry of Economic of either the Renewable Energy and Energy Efficiency department or the Construction and household policy department. The head of Riga Planning Region administration Janis Miezeris (our partner) will obviously participate as well.
- **Spain:** it will be involved the General Director of Energy & Mines from the Regional Minister of Economy and Employment of the **Regional Government of Castilla y León**. The regional ministry is

responsible of the regional energy policy and energy planning.

As outlined in WP3, the **regional/municipal authorities participating to the CGCs will be thus asked to endorse (or commit to carry out) an implementation plan** (that is, an implementation road map) agreed with them. It is in addition conceivable that the CGCs as a whole might agree to support this endorsement assuring its support (expressed in accordance with the different competencies of the committees members) to the plan implementation phase. The endorsement can be obtained through the signature of a memorandum of understanding having similar format and contents for all the participating countries.

To achieve these objectives this WP is structured into following **main tasks**:

- The development of Regional RES H/C plans. In this task, the project partners will develop the Regional RES H/C plans followed by the methodology created in WP5 and in collaboration with Country Governance Committees.
- The synthesis report on Regional RES H/C plans. The task aims to collect the information from all Regional RES H/C plans, which will be used as the bases for evaluation and consolidation of RES H/C plans in WP7.
- The lay-out of the **implementation road map of the Regional RES H/C plans** and the preparation of a **memorandum of understanding to be signed by the regional authorities responsible for the plans implementation**

The CGCs will have a major role in supporting the development of Regional RES H/C plans by participating and giving contribution to implementation of WP6 tasks. To this end out of the 4 CGC workshops envisaged (see WP3, workshop timetable), three involve directly WP6 to support the development of the RES H/C plans. The table below (as well as the plan development scheme shown in part b) task 6.1) shows the linkage between the CGCs workshops and the plans development phases.

Workshop Number	Implementation month	Linkage	Purpose
2nd	16-17	Subtasks 6.1.2-6.1.7 Step 3	Discussion on the results of the costs-benefit analysis on the selected interventions to exploit the RES H/C potential
3rd	19-20	Subtasks 6.1.2-6.1.7 Steps 4	Discussion and support to the intervention strategies and accompanying measures envisaged in the plans
4th	23-24	Subtasks 6.1.2-6.1.7 and task 6.3 Step 5	Plans acceptation and Endorsement to their actual implementation

b) Description of the tasks:

Task 6.1. The development of RES H/C plans. Task leader: EKODOMA

This task is created to collect the results and experience from other project activities in order to develop the Regional RES H/C plans in each country. In this task, each project partner is responsible for the development of the RES H/C plan taking into account the general planning methodology created in WP5 and current situation on RES H/C in each region.

In order to ensure the development of RES H/C plans on time and to support the accomplishment of the work the task T.6.1 is structured in seven subtasks, each lead by the following partners:

- *Subtask 6.1.1, Coordination of RES H/C plans development, Leader EKODOMA*
- *Subtask 6.1.2, RES H/C plan development in Castilla y Leon, Spain, Leader EREN*
- *Subtask 6.1.3, RES H/C plan development in Emilia Romagna region, Italy, Leader ARPA ER with the support of ISIS and ENEA (subcontractor)*
- *Subtask 6.1.4, RES H/C plan development in Salzburg Region, Austria, Leader AEA*
- *Subtask 6.1.5, RES H/C plan development in Riga Region, Latvia, Leader Ekodoma with the support of RPR*
- *Subtask 6.1.6, RES H/C plan development in Western Macedonia, Greece, Leader CRES with the support of ANKO*
- *Subtask 6.1.7, RES H/C plan development in Rhodope Region, Leader BSERC with the support of RPR.*

These subtasks will all carry out the same activities as exemplified in the figure below and briefly outlined in the following paragraph.

All activities regarding the regional heating and cooling planning and mapping of demand and supply will be coordinated with the Coordinators (and partners) of the project STRATEGO which plans to undertake extensive and detailed work on heating and cooling planning and mapping of heating and cooling across different regions in the EU. These coordination activities will be reported in the progress, interim and final reports.

Task 6.1.1. Coordination of RES H/C plans development

In this subtask The WP-leader will:

- control and coordinate the work by each task leader by e-mails and phone-contacts, as well as organizing the conference calls every three months during this WP.
- take care of the feedback from the country CGC provided during the 2nd, 3rd and 4th rounds of workshops. The comments from the country CGC will be reviewed and incorporated into the Regional RES H/C plans. This task will be carried out in collaboration with WP3-leader.

To provide an even more successful implementation of RES H/C plans three PSC meetings will be organized during the plan development phase: the first one at the starting of the subtasks activities, the second before to start step 4 (see below) and the final one at the end of the planning work.

T6.1.2 – 6.1.7 General Contents: These tasks are divided in the following five working steps:

Step 1 Analysis of the regional Sustainable Energy Action Plans (SEAP)

This working step starts in advance with respect the other one in order to better interact with WP2

and then with WP5. The envisaged working procedure is the following

Upon the SEAPs data gathered in WP2 and further elaborated in WP5, the 6.1 subtask leaders will then work out these information in order to constitute a reference planning map on the local targets and policies for the subsequent steps 2 and 3

Step 2 Demand and supply data collection and energy potential evaluation

On the basis of the training support and the methodological and technical documentation provided by WP5, each regional team will:

- Collect/estimate the required data. To this end, the involved partners will distribute the data collection questionnaire designed in WP5 to all the local associations and consortium of industries and farmers that need of low temperature heat for their productions (food industries, hotel and sporting facilities, greenhouses, etc.). Data will be acquired also through the support of the CGCs and specialized databases
- Build a map of the available and planned (i.e. cogeneration power plants) low enthalpy sources identifying them on the basis of their main energy and geographic characteristics
- Build a map of the regional demand evaluating the heating and cooling requirements in accordance with the building typology and the industry/commercial structure

This regional H/C maps, together with that laid out in step 1, will be used as the basis for setting the cost effective interventions to be considered in the RES H/C plans.

Step 3 Cost benefit analysis of selected RES and waste heat recovery technologies

Within this step a cost-benefit analysis to integrate, on the basis of the outputs of step 2, the energy supply resources, including waste heat and renewable sources, with the demand of energy. To this end each country team, on the basis of the training support and the technical documentation on cost benefit analysis provided by WP4 will estimate the impact and cost assessment of selected interventions to exploit the regional RES H/C potential.. The interventions with the better cost-effectiveness, lowest environmental impact and highest energy and social benefit will be recommended to be included in the RES H/C plans. The results of this exercise will be presented to and discussed with the CGCs to achieve a policy consensus on this sensitive step of the plan (2nd CGC workshop)

Step 4 Strategies and accompanying policies for RES H/C plans implementation

This step finalizes the plan development. Basing upon the baselines provided by steps 1 and 2, the good practices analysis carried out in WP2, as well as the results of step 3, the more appropriate intervention strategy (priorities settings, time scheduling of the interventions, etc.) and accompanying policy measures for the plan roll out of the will be discussed and laid out.

The intervention objectives and planned policy measures will be furthermore discussed among the country CGC (3nd round of workshops in WP3) in order to agree a common approach and consensus, which ensures a smooth implementation phase.

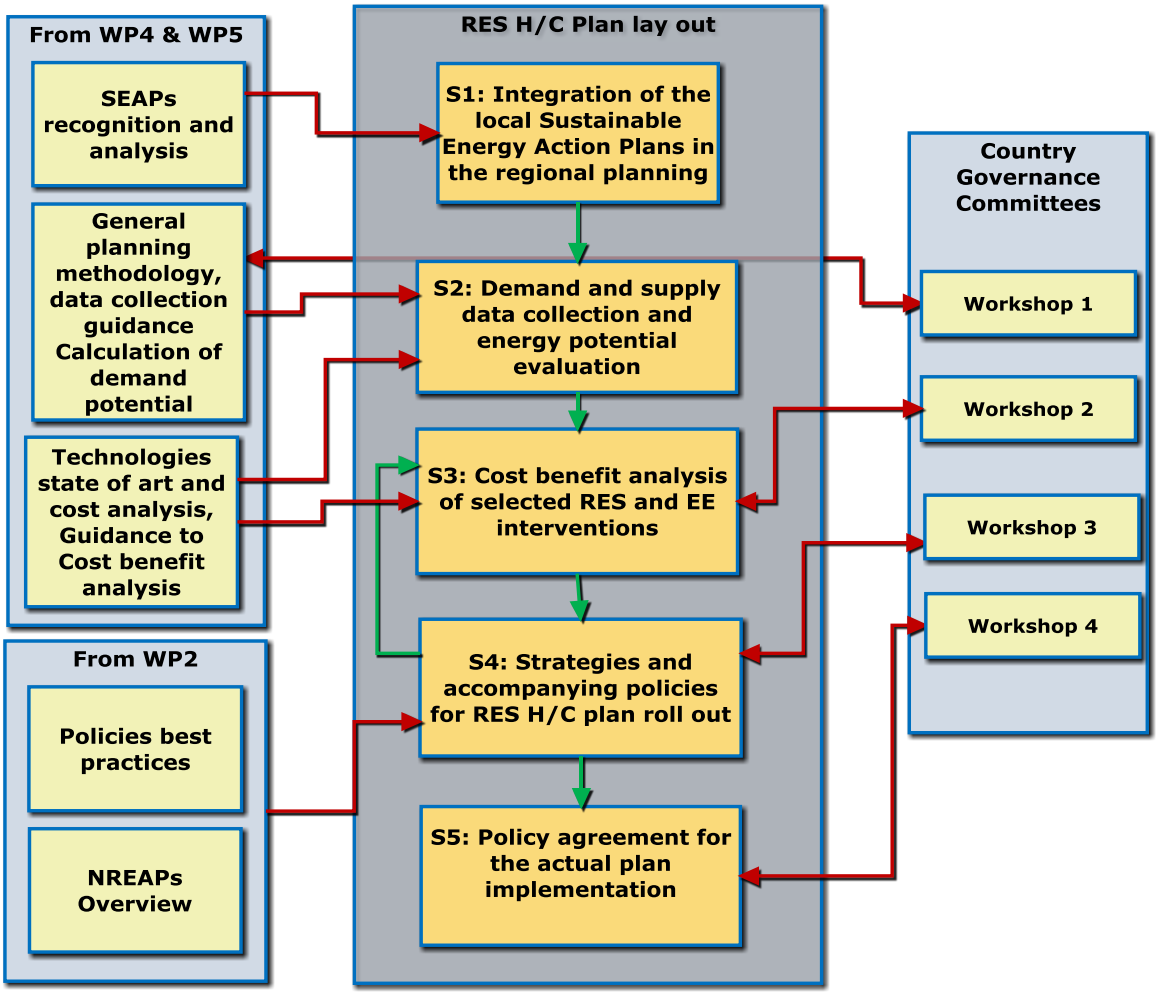
It is important to add that an important activity of this plan development phase will be the setting of the monitoring procedures to control the effectiveness of the plan implementation and measure its actual impact. In addition, these procedures will be discussed in the CGCs, and especially with the regional authorities that have to implement them, in order to evaluate their actual practicability in the framework of the available resources and existing legislation.

Step 5 Actions and strategies for the plan implementation

The step is more political than technical and has the objective to discuss the plan that have been set up with the CGCs in order to arrive to an agreed memorandum of understanding for its the actual implementation. To this end it will be discussed the constraints and opportunities for its implementation, including the identification of possible financial resources, and laid out an implementation schedule. In this framework the support and steering role of the CGC will be opportunely enlightened with the objective to both assure its continuation also during the implementation phase but also to envisage the constitution of a permanent participatory governance organism.

The following figure show the sequence of these steps and the connections with the other operative WPs of the project and the Governance committee:

General RES H/C Plan layout and data exchange from and to the other WPs.



This task will produce the **following deliverables**:

Six Regional Maps of the RES H/C supply and demand potentials (D6.1)

These maps constitute the arrival point of the supply and demand analysis carried out in step 2 of tasks 6.1.2 – 6.1.7 of WP6 on the basis of the methodological and technical input provided by WP4 and WP 5. The maps will show the demand and supply potential of each of the involved regions in an interactive way (regional scale). For example by clicking on a given highlighted point of the map the

system will provide the data corresponding to this point (size/power of a cogeneration plant, length/diameter/served population of a district heating system, heating demand data, etc.)

The maps are integrant part of the regional plans but can also be shown/used alone for dissemination/information purposes."

Six regional RES H/C plans (D6.2)

These plans will be written in the national languages in order to serve more successful implementation of the plans. To this end, each responsible partner will ensure the preparation of summary in English of the Regional RES H/C plans. The summaries will be edited in Deliverable D.6.3 (Synthesis report on Regional RES H/C plans) to be developed in Task 6.2

Task 6.2. Synthesis report on Regional RES H/C plans. Task leader: Ekodoma

The WP-leader with the support of WP3-leader will prepare a common synthesis report on all Regional RES H/C plans. The report will include the summary and comparison of all RES H/C plans to provide the bases for the WP7 evaluation and recommendations of RES H/C plans on EU level.

Task 6.3 Lay out of a roadmap for the plans implementation and preparation of a memorandum of understanding for each involved region

As outlined in point a. of this WP, the regional authorities (or similar figures) participating to the CGCs will be asked to endorse the plans here developed in order to bring and support them at policy level. To this end it will be agreed with these authorities, and with the other CGCs members, a **specific implementation road map** (i.e. approval procedures, seeking/founding of financial coverage, constitution of a CGC, citizens involvement, preparation of tenders documents, etc) that will constitute the basis of a memorandum of understanding to be signed. It is worth noting that these memoranda will explicitly envisage the constitution of and ad hoc CGC for the plans implementation. This CGC might be the same already formed within this project or a similar one in accordance with the opportunities and political choices of the regional authorities. This task correspond to STEP 5 of the plan development procedure.

This task will then produce the deliverables D6.3 and D6.4

IIa. Outputs of this work package (apart from deliverables):

O.6.1 The mapping of the supply and demand RES H/C data in each country

O.6.2 The overview of objectives and planned policy measures in each country

O.6.3 The overview of impact and cost assessment of selected policy measures in each country

O.6.4 The overview of monitoring of selected policy measures in each country

IIb. Deliverable(s) of this work package:

D.6.1 Six Regional Maps of the RES H/C supply and demand potentials (M15 draft, M17 final);

D.6.2 Six Regional RES H/C plans (M21 draft, M24 final);

D.6.3 Synthesis report on Regional RES H/C plans (M24).

D.6.4 Endorsement of Regional RES H/C plan implementation in each country (Memorandum of Understanding) (M23)

III. Distribution of tasks of each partner in this work package:

Partner	Task(s) of this partner organization	Related to Task N°
EKODOMA	WP Leader. Manage and support the development of Regional RES H/C plans. Responsible for D.6.1 and D.6.3.(in collaboration with the country teams) Responsible for the Latvian plan development in the Riga Region, subtask 6.7.5	6.1, 6.3, 6.1.1, 6.1.5
EREN	Responsible for the Spanish plan development in the Castilla y Leon Region, subtask 6.7.2.	6.1.2
ISIS	Support to the preparation of synthesis report. Support to ARPA for the Italian plan development in the Emilia Romagna Region, subtask 6.7.3	6.2, 6.1.3
AEA	Support the overview of RES H/C policies and the preparation of policy measures list. Review of the Austrian measures Responsible for the Austrian plan development in the Salzburg Region, subtask 6.7.4.	6.1.4
CRES	Review of the Greek measures Responsible for the Greek plan development in the Western Macedonia Region, subtask 6.1.6.	6..1.6
BSERC	Review of the Bulgarian measures Responsible for the Bulgarian plan development in the Rhodope Region, subtask 6.7.2..	6.1.7
ARPA ER	Responsible for the Italian plan development in the Emilia Romagna Region, subtask 6.1.3	6.1.3
Local regional partners: ARM, ANKORPR	Support for the development of Regional RES H/C plans.	Subtasks 6.1.5, 6.1.6, 6.1.7
CTI	Follow up of the training sessions and technical support to the country teams	6.1 (steps 2,3)

Major other specific costs:

- Data acquisition from specialized databases. These costs are allocated to: CRES, EREN, BSERC, EKODOMA, ARPA E.R.

Major subcontracts

- ENEA: Support to ARPA EMR to the Regional plan design also taking into account the national policy strategies and requirements. This subcontract is allocated to ARPA E.R.

The subcontractors identified will be selected following the provisions of Article II.9 of the Grant Agreement on competitive grounds on the basis of best value for money.

5.2.6 Work Package 7

N° of work package: 7	**RES H/C plans lay out in the participating countries**
Duration in months: 5	**WP Leader: AEA**

I. Description of the work:

a) Overview of the Work package:

This WP provides two documents that will document the experience gained during the development of the RES H/C plans in a compact and easy-to-read manner. The first document encompasses an evaluation of the activities carried out in the project and the extraction of lessons learned. The second document will provide the final, **consolidated guidelines and tools to support the plan developers at both the policy and technical level**. Both documents are intended as products that can be directly used for the transferability activities of the project to regions/countries outside the scope of the project. (see WP8 Task 8.7)

These documents will be, in addition, peer reviewed by the project partners. In addition, the "Summary Fact Sheets", a structured summary built on the basis of these documents, will be **translated** in the project **national languages** (Bulgarian, German, Greek, Italian, Latvian and Spanish).

b) Description of the tasks:

Task 7.1: critical evaluation of the work carried out in WP6 highlighting strength and weak points.
Task leader: AEA

This task will conduct an evaluation of the development of regional RES H/C plans. The main purpose of this evaluation is to document the experience gained in the process and extract "lessons learned" that can be conveyed to relevant actors outside the participating regions and countries. As such, this evaluation will be a deliverable that can be directly used for the transferability activities of the project.

This evaluation will be carried out mainly on the basis of the following elements:

- an appraisal of the achievement of the performance indicators outlined in chapter 6,
- The views expressed by the Country Governance Committee members during the last CGC workshop (see WP3),
- An auto-evaluation provided by the partners themselves: In order to collect the views of project partners, a brief self-evaluation questionnaire will be circulated by the task leader at the starting of the task activities.
- The summary reports provided by WP3 and WP6.

This "lessons learned" product aims at providing suggestions and indications on what to do, what to improve and what should be avoided when a public administration or a regional agency intends to undertake the development of an action plan that aims at promoting the RES H/C technologies and markets.

The **key points to be evaluated** will then be:

- The consistency, practicability and expected effectiveness of the plans that have been developed within the project.

- The transferability of these plans and the process of preparing them to other EU regions/countries: which are the common points (e.g. methodological issues, support tools, evaluation and monitoring process), which are likely bottlenecks to be expected, and which are more specific lessons, linked to the participating countries and regions.
- The degree of usefulness of the accompanying Country Governance Committee and how their effectiveness could be improved.

This task will produce the deliverable D7.1

Task 7.2: Writing and editing of the final guidelines. Task leader: ISIS in collaboration with CTI

The purpose of this task is to produce a compact **synthesis of guidelines for the development of RES H/C plans** in an easy-to-read language that can be used as part of the dissemination and transferability activities.

The guidelines will be developed on the basis of the lessons learned during the development of the RES H/C plans in WP6, both the draft methodological guidelines outlined in WP5 and the cost-benefit handbook WP4 will be reviewed and amended. This will be mainly done on the basis of the judgment of the level of clarity and usefulness of the methodological and technical contents transferred during the training sessions and the way these contents have concretely supported the plan development exercise.

These guidelines will be then edited and published in order to be distributed in the national conferences and others EU dissemination events (see Task 8.7). **The guideline will be structured in training modules so that they might be also used, after the project end, within training and capacity building initiatives.** From the editorial point of view it will be, in addition, produced an elegant-easy to read text in pdf format and summary fact-sheets (a brochure of max 8 pages in A4 format) containing the key recommendations extracted from the guideline. These summary sheets will be translated in the 5 national languages of the project and distributed during the national conferences and EU events to which the project leader will participate as well as through the communication channels of the CGC members.

This task will then produce the deliverable D7.2 and D7.3.

IIa. Outputs of this work package (apart from deliverables):

O7.1 Critical review of the work carried out

O7.2 A consolidated methodology to support the plans developers

IIb. Deliverable(s) of this work package:

D.7.1: The learned lesson from the development of six RES H/C action plans (M27);

D.7.2: Guidelines and tools (Excel sheets) to support the planning exercise in the field of the Heating and Cooling Renewables (M26 draft, M27final);

D.7.3 Summary factsheets in English and in the project language (M27).

III. Distribution of tasks of each partner in this work package:

Partner	Task(s) of this partner organization	Related to Task N°
AEA	Coordination of the whole WP, redaction of the lesson learned document	T.7.1
ISIS	Consolidation of the draft methodological guideline developed in WP5. Redaction of the whole guideline document and of the factsheets	T.7.2
CTI	Support to ISIS to the redaction of the guideline an the summary fact sheets for what concerns the consolidation of cost benefit analysis techniques and the H/C demand evaluation	T.7.2
All the other partners	Peer review of the deliverables issued within this WP, Translation of the summary sheets in national language	T. 7.1, T.7.2

Major other specific costs:

- Graphic design and printing of 500 Methodological Fact – Sheets These costs are allocated to: ISIS

Major subcontracts

- External, independent, expert for the results review and evaluation: This subcontractor will conduct an independent review of the project results, and specifically, of the summary reports produced in WP3 and WP6 and the regional RES H/C plans developed in WP6. In doing so, the subcontractor will provide an input to the extraction of “lessons learned”. The subcontractor shall ensure that an impartial assessment of results is carried out and an independent perspective of the process and results is delivered.
  This subcontract is allocated to: AEA

The subcontractor to be identified will be selected following the provisions of Article II.9 of the Grant Agreement on competitive grounds on the basis of best value for money.

5.2.7 Work Package 8 Communication

Nº of work package: 8	**Dissemination and Communication**
Duration in months: 30 (with interruptions)	**BSERC**

I. Description of the work:

a) Overview of the Work package:

The aim of this work package is to ensure, manage, and implement effective communications for RES H/C Spread project that help it meet its objectives.

Partners will be providing throughout the project well-structured information to target groups and key actors, using those communication channels that have the highest effectiveness and efficiency with respect to each specific target group.

The main focus of the communication activities will be placed on the involvement of relevant public authorities at national, regional, and local levels.

The main channels to reach the target audience are the project website, flyers, posters, E-newsletters, media releases and events.

The WP leader will, in addition, **develop a targeted Dissemination Plan** (DP) upon the input provided by the project and in accordance with the CGC's components. The DP format and template will be illustrated during the first coordination meeting in order to be discussed and approved by the Project Steering Committee. The DP will be then continuously updated during the project and proactively supported by all project partners.

b) Description of the tasks:

Task 8.1. List of target groups and first contacts, preparation and updating of the Dissemination Plan. Task leader: BSERC

In each of the target countries, a full contact list of all target groups will be elaborated. This contact list will be worked out in collaboration with the Governance Committee to be constituted in WP4. At first glance the target groups will consisting of:

- National authorities in charge of the development and implementation of: (a) National Renewable Energy Action Plans; (b) Plans relevant to Art.14 of EED; (c) EPBD
- Regional and local authorities (LRAs) in charge of the development and implementation of policies and plans in the area of renewable energy and/or heating and cooling.
- Associations of LRAs, with a special emphasis on Covenant Supporters.
- District heating companies, other utilities, energy traders, and other potential data providers and obliged parties with respect to RES H/C plans.
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In addition to the Governance Committees, all partners will contribute to this list, according to the partner's role. (e.g. associations of municipalities will be in charge of LRAs contacts). The contacts will be as specific as possible, including names of the relevant persons, telephones, e-mails, etc.

Additionally, BSERC and ISIS will prepare a list of the major stakeholders from the EU countries not covered by the project, as well as stakeholders at EU level.

These lists will be fully developed in project month 4 before the first WP3 workshop and again prior to the national seminars in Task 8.7.

Simultaneously with the preparation of the contact list, first contacts with the main target groups and key actors in each country (different in each country) will be established. By either physical meetings (e.g. during relevant events) or telephone conversations, partners will contact the most appropriate representative(s) of each organization. The meetings and the telephone calls will aim to introduce the project, outline the potential benefits from the project to the particular organization, and inform about the forthcoming project activities, in which the organization is invited to take part (e.g. network establishment and workshop – see WP3).

Within this WP it will be **prepared and then updated the project Dissemination Plan** (DP) that will take notice of all the dissemination activities planned and then carried out by the project partners. In particular the DP will report on all communication activities during the project duration such as involved key actors and target groups, partners', organisation of meetings, participation to external events, published articles, press releases and newsletters, as well us updating/monitoring of the specific performance indicators for dissemination activities (see the following tasks 8.2 – 8.6). The plan structure will be approved during the first coordination meeting.

A specific section of this plan will concerns the CGCs. To this its aim and scope will be illustrated to the CGCs at the beginning of their activity and then implemented in accordance with the dissemination activity carried out by the CGCs themselves (see task 8.7)

This Task will then produce the deliverables D8.1 and D8.2

Task 8.2. Project visual identity. Task leader: BSERC

BSERC (using the services of an internal professional graphical designer) will design all elements of the project image including logo, templates (of deliverables, presentations, flyers, etc.), pictures, use of fonts etc. by project month 2. This Task will then produce the deliverable D8.3

Task 8.3 Project website. Task Leader: ISIS

ISIS, in collaboration with the BSERC graphical designer, will design and build the project website and project intranet (using the same domain and hosting. The project website will be used for external communication to target groups and key actors, while the intranet will be a password protected area for partners only.

The website will be professionally designed, attractive, easy to use, easy to access, and regularly updated. It will contain only relevant (for the project target groups) and well-edited information in the languages of all partner countries and in English. It will contain project information (objectives, activities, expected results, partners), project results (uploaded immediately after completion), announcement of events, news, and useful links. The number of visits will be monitored.

A section of the website will be dedicated to the participating countries and will be written in national languages to allow national stakeholders to easily navigate through the main outputs like: description of activities of the projects affecting their national territory, contact points for national activities, announcement of events, etc.

The website will be fully operational in month 4 of the project and will be maintained by ISIS in collaboration with BSERC during the project and 36 months after its end.

This Task will then produce the deliverable D8.4

Task 8.4 Project flyers and posters. Task Leader: BSERC

Two project **flyers** will be produced. With a clear and simple language, the 1st one will present the methodological settings of the project and the results from the first workshops of the CGCs (Month 12) and the 2nd one – a summary of its achievements (Month 28). BSERC and ISIS will jointly develop the flyers in English. ISIS will print 500 copies in English and will disseminate it at the international events, in which the project will be presented.

Additionally, the flyers will be translated in the languages of all target countries. Each of the two flyers will be printed in 150 – 300 copies (depending on the number of target stakeholders) in each language by the relevant national partner and circulated at all relevant meetings and events in the target countries.

Finally, BSERC will design a project poster and it will be printed in each national of the partners languages. The posters will be shown at all events (see Task 8.7.)

This Task will then produce the deliverable D8.5.

Task 8.5 Project Newsletters. Task Leader: BSERC

Digital and interactive newsletters will be designed to keep the targeted audience up to date with the progress of the project and to invite them to take part in the project events and other activities.
Five E-newsletters will be prepared and distributed electronically over the project's life to the complete list of project stakeholders, prepared in Task 8.1.
The newsletters will be developed in English by BSERC, using the inputs of all partners and distributed internationally. A partner from each country will be responsible for the translation, adaptation (e.g. put emphasis on the country-related information) and electronic dissemination in the country.

This Task will then produce the deliverable D8.6.

Task 8.6 Project Press Releases and Articles. Task Leader: BSERC

4 press releases and 2 articles will be published in each partner country, either in paper or in electronic format. These media releases will be published in magazines, newspapers, and websites that are popular among the targeted public authorities, LRA associations, and utilities. For example, at local level these media releases may be disseminated via the national or regional associations of LRAs. The press releases will announce the major project developments and events, while the articles will be used to disseminate important project results. Each of these media releases will be disseminated using as many channels as possible and in addition they will be published to the project website and partners' websites.

This Task will then produce the deliverable D8.7.

Task 8.7. Events. Task Leader: BSERC

There will be two different types of dissemination events:

1. **One national event** (seminar) **in each country participating to the project**: Austria, Bulgaria, Greece, Latvia, Italy and Spain It will be addressed to all the national and regional stakeholders involved/interested in the development and implementation of RES H/C plans and technologies: national, regional, local authorities and related associations, national and local

energy and environmental agencies, utilities, industry and trade association, etc. This events will take place during the last four months of the project.
The involved regions will, in addition:

- Either take advantage of their participation to institutional events in which other regions and state authorities are involved (i.e. policy and technical events related to regional planning, implementation of EED articles, etc.) to inform the participants about the relevant activities and achievements of the RES H/C SPREAD project.
- Or invite high level representatives of other regions in the CGCs (a specific fund has been envisaged to cover these costs) or travel to other regions, also outside the institutional activity (i.e. (participation to workshop/meetings of other regional / national energy agencies etc.), to illustrate the project achievements

2. **At EU level** through the active participation of the project leader to at least two European events

At **national level**, in addition to the national seminars, the **dissemination will be also carried out by the CGCs members** by activating their own networks and dissemination media. These networks will channel the project achievements to the corresponding Committees target groups. This means that specific targeted dissemination activities will be organized in collaboration with and the support of the Governance Committees participants like, i.e., municipalities, industry and agricultural associations, local business events and specialized fairs, etc.

In particular, the CGC members will present the project results at events, conferences, working groups, in magazines and newspapers. All their connections to the press and media will be used to promote the RES H/C plan and the outcomes of the project at local, regional, national and, possibly, EU level. The events of EUSEW will be a broader tribune for dissemination of the project results. Finally, in each country, a press release will be in launched, in conjunction with the last CGC workshop.

The CGCs dissemination actions will preferably start once the RES H/C plans will be discussed and approved within the Governance Committees (**starting from month 19/20** up to the end of the project).

The national seminar will be organized at the end of the project (months 27-30) in each target country. The seminar will disseminate all important project results to ensure that they are taken up by the target groups and key actors. The emphasis will be on the conclusions and recommendations about the plan data collection methods, plan monitoring methods, and the suggested plan template. Applicable results from all project countries will be presented. All stakeholders from the list (Task 8.1) will be invited and 40-80 participants (depending on the project scope in the country) are expected to attend. Partners will have the option to split this seminar into two seminars in different parts of the country, in order to attract more participants. An evaluation questionnaire (template sent by BSERC) will be completed by participants. In addition both journalists will be invited to participate to these national event (where possible and in agreement with the policy authorities involved, during these events it will be organized also short press conferences).

Participants will be offered to get their travel and accommodation costs (within certain limits) reimbursed by the project.

For what concerns the dissemination at EU level our strategy is to both participate to conferences or events at EU level to reach the maximum number of European stakeholders (in particular regional authorities) and to be cited in newsletters/websites of EU networks addressing to the audience of the RES H/C SPREAD project. Press releases addressed to specialized magazines or webzines are another dissemination medium that will be taken into consideration.

To add strength and credibility to this aims we envisage involving institutions like FEDARENE (some of our partners, like i.e., CRES and EREN, take part of this federation) or even EnR for what concerns the EU Energy Agencies. To this end, a small subcontract with FEDARENE is envisaged in order to secure its collaboration.

In addition, the consortium will work / engage with other projects as relevant, e.g other IEE projects working in assisting public authorities in, i.e., developing / implementing SEAPs. The possibility to present the project achievements at events organized within other projects will considered if viable and vice-versa, all project events will be open for collaboration with the other relevant projects.

Finally the consortium will actively seek to participate to EU Sustainable Energy Week in 2015 by participating to an event targeted to regional and local authorities (should this, or a similar event, take place in this year before the end of the project).

It is finally worth adding that the main dissemination material that will used to transfer the project achievements and knowledge beyond the target regions will based on the final guidelines and the summary fact sheets developed in WP7.

This Task will produce the deliverables D8.8 and D8.9.

IIa. Outputs of this work package (apart from deliverables):

O8.1 Increased involvement of target groups and key actors in the project
O8.2 Increased awareness of the RES H/C plan
O8.3 Networking of target groups and key actors.

IIb. Deliverables of this work package:

Deliverables (brief description) and month of delivery

D 8.1. Dissemination Plan M3, M9, M19, M27
D8.2. List of target groups, with indication of contacted ones M3, M9, M19, M27
D8.3 Visual identity (M2)
D8.4 Project website (M4)
D8.5 Project flyers and posters in English and national languages (M12, M26)
D8.6 Project Newsletters in English and national languages (M8, 12, 19, 26, 30)
D8.7 Project press releases and articles in English and national languages (during the whole project) (M30)
D8.8 Minutes of the national workshops (M27 - M30)
D8.9 Presentations at other events (national and European) (M27, M30)

III. Distribution for tasks of each partner in this work package

Partner organization	Task(s) for this partner organization	Related to Task Nº
BSERC	WP coordination	all
	Editing and maintenance of the Dissemination plan	all
	Input to list of target groups in non-project countries	8.1
	Project visual identity	8.2
	Project website development & update	8.3
	Design and input to project Flyers and Posters	8.4
	Project newsletters development	8.5
	General coordination of the national events and of the CGCs dissemination actions (in collaboration with the project partners: short articles, press releases, etc.)	8.7
	Coordination with FEDARENE (or equivalent association)and the project partners in the preparation of short news/articles to be issued in external dissemination media addressed to stakeholders at EU level	8.7
ISIS	Project website development & update	8.3
	Input to list of target groups in non-project countries	8.1
	Input to project Flyers and Posters and printing	8.4
	Project presentation at European events (in collaboration with FEDARENE as subcontractor)	8.7
	Supervision of the dissemination material at national and EU level,	8.7
PARTNERS	National list of target groups and contacting them	8.1
	Website translation and sending information	8.3
	Translation and printing of national flyers	8.4
	Input, translation, distribution of E-newsletters	8.5
	Development and publication of press releases & articles	8.6
	Organization of national seminars	8.7
	Preparation of short articles, news, etc., to be disseminated by the CGC members	8.7

Major other specific costs:

- Website hosting and domain The website hosting costs are allocated to ISIS
- Printing of flyers in English Printing of flyers and posters in partner languages. These costs are allocated to: ISIS, CRES, EREN, BSERC, EKODOMA, AEA
- Participation fee for ISIS at European events (if needed) Organization of national seminars (rent of hall and equipment, catering, folders, paper, and pens for participants). Costs allocated to ISIS

Major subcontracts:

- Printing of flyers in English Printing of flyers and posters in partner languages, printing of posters in partner language. Subcontracts allocated to: ISIS, CRES, EREN, BSERC, EKODOMA, AEA

- FEDARENE. FEDARENE will support ISIS in the organization (by using its information channels and hosting the CO in one of its EU level workshops) of the EU level dissemination activities. This subcontract is allocated to ISIS

The subcontractors identified will be selected following the provisions of Article II.9 of the Grant Agreement on competitive grounds on the basis of best value for money.

5.2.8 Work Package 9: IEE Common Dissemination Activities

N° of work package: 9	**EACI dissemination activities**
Duration in months: 30	**ISIS**

I. Description of the work:

a) Overview of the work package:

The work package covers resources to contribute, upon request by the EACI, to common dissemination activities to increase synergies between, and the visibility of IEE-supported actions.

b) Tasks

Task 9.1: Contribution, upon request by the EACI, to the development of information material (Intelligent Energy News Review, videos, images etc.), as well as inputs to European portals and databases in the quality and form specified.

Task 9.2: Participation and/or contribution, upon request by the EACI, to information, training and dissemination events such as contractors' workshops, conferences, briefing days, exhibitions, etc.) related to IEE or other relevant EU programmes..

Task 9.3: Delivery, upon request by the EACI, of an update/further input of the action's contribution to the IEE Common performance indicators".

II.a. Outputs of this work package:

O.9.1 Delivery of agreed presentation materials and media tools

O.9.2 Participation in events, such as contractor's workshops, conferences etc.

II.b. Deliverable(s) of this work package:

D9.1 Set of updated IEE Common Performance indicators including their baseline and assumptions for extrapolation due in the month equivalent to June 2014

- To be agreed specifically at the time of the request

III. Role and contribution (tasks) of each partner in this work package:

Partner	Task(s) of this partner organisation	Related to Task N°
ISIS	Participation to the EACI dissemination activities	1, 2, 3

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5.3 Overview of Deliverables

Work Package N°	Deliverable N°	Deliverable name	Type of deliverable	Format	Language(s)	Target group	Lead participant	Dissemination level	Month of completion
WP 1	D1.0	Contingency plan	Working paper	3-4 pages	EN	Project partners	ISIS	CO	M2
WP.1	D1.1	Publishable Result-Oriented Report	Working paper	30 pages	EN	EC	ISIS	PU	M30
WP.2	D2.1	D2.1 Report of compilation and analysis of good-practice examples of RES H/C policies and measures including an executive summary emphasizing lessons learned	Working paper	15-20 pages	EN	Project partners	AEA	PU	M4
WP.2	D2.2	Factsheets of good-practice examples for public dissemination	Electronic version	One/two sheet(s) per country	National languages: Bulgarian, Greek, German, Latvian, Italian Spanish and EN	Regional/Local authorities, national, regional agencies, experts/consultants	AEA	PU	M6
WP.2	D2.3	Report containing an in-depth analysis of the RES H/C policies implementation status in the participating countries: screening policies and legislative measures, instruments and activities at national and local level within the framework of the NEEAPs and NREAPs	Report	30 pages	EN	Regional/Local authorities, national, regional agencies, experts/consultants Universities	AEA	PU	M6
WP.3	D3.1	Recommendations for the establishment of the Country Governance Committees	Working Paper	5 pages	EN	Project partners	CRES	PU	M3
WP.3	D3.2	List of country Governance Committee Partners - PSC	Working Paper	2-3 pages	EN	Project partners	CRES	PU	M5

WP.3	D3.3	Protocol of communication among the C.G.C and P.S.C.	Working Paper	5 pages	EN	Project partners	CRES	PU	M5
WP.3	D3.4	Methodological and procedural approach for the organization and implementation of the workshops	Working Paper	5-10 pages	EN	Project partners	CRES	PU	M5
WP.3	D3.5	Minutes of 1st round of workshops-All countries	Electronic version	2-3pages	EN	Project partners	CRES	CO	M12
WP.3	D3.6	Minutes of 2st round of workshops-All countries	Electronic version	2-3pages	EN	Project partners	CRES	CO	M18
WP.3	D3.7	Minutes of 3rd round of workshops-All countries	Electronic version	2-3pages	EN	Project partners	CRES	CO	M21
WP.3	D3.8	Minutes of 4th round of workshops-All countries	Electronic version	2-3pages	EN	Project partners	CRES	CO	M25
WP.3	D3.9	Synthesis report	Report	20-30 pages	EN	Regional/Local authorities, national, regional agencies, experts/consultants	CRES	PU	M27
WP.4	D4.1	Handbook on cost benefit analysis with Excel based exercises and examples	Report	20-30 pages	EN	Regional/Local authorities, national, regional agencies,	CTI	CO	M9(preliminary draft), M11 (final)
WP.4	D4.2	Training sessions: 4 1/2 day webinars and two 1/2 classroom sessions	4 1/2 day Webinars and 2 1/2 classrooms	-	EN	Project partners	CTI	CO	M12-16
WP.4	D4.3	Report on the training sessions	Report	20 pages	EN	Project partners	CTI	CO	M18
WP.5	D5.1	SEAPs (or equivalent plans) analysis in the involved regions	Paper	30-40 pages	EN	Project partners, Regional/Local authorities, national, regional agencies, experts/consultants	ISIS	PU	M9
WP.5	D5.2	Draft guidelines to set the baselines for the RES H/C development and the monitoring procedures	Working paper	30-40 pages	EN	Project partners	ISIS	CO	M11

WP.6	D6.1	Six Regional Maps of the RES H/C supply and demand potentials	Web application and Report	Interactive screens 7-10 pages x 6 regions	National languages: Bulgarian, Greek, German, Latvian, Italian Spanish	Regional/Local authorities, national, regional agencies, experts/consultants	EKODOMA (editor and contributor) AEA ARPA ER BSERC EREN, CRES	CO	M15 (draft), M17 (final)
WP.6	D6.2	Six Regional RES H/C plans	Report	30-40 pages x 6 regions (without the data maps)	National languages: Bulgarian, Greek, German, Latvian, Italian Spanish And EN	Regional/Local authorities, national, regional agencies, experts/consultants of the involved countries Citizens representative Regional business and trade associations Universities	EKODOMA (editor and contributor) AEA ARPA ER BSERC EREN, CRES	CO	M21 (draft), M24 (final)
WP.6	D6.3	Synthesis report on Regional RES H/C plans	Report	20 pages + 6 summaries of the national plans (10 pages each)	EN	Regional/Local authorities, national, regional agencies, experts/consultants Citizens representative Regional business and trade associations, Universities	EKODOMA	PU	M24
WP.6	D6.4	Endorsement of Regional RES H/C plan implementation in each country	Letter	2-4 pages	National	Regional/Local authorities,	EKODOMA + ARPA,	PU	M24

		(Memorandum of understanding)			languages: Bulgarian, Greek, German, Latvian, Italian Spanish and EN	CGCs Members	CRES, AEA, BSERC, EREN		
WP.7	D7.1	The learned lesson from the development of six RES H/C action plans	Report	20-30 pages	EN	Regional/Local authorities, national, regional agencies, experts/consultants Citizens representative Regional business and trade associations Universities	AEA	PU	M27
WP.7	D7.2	Guidelines and tools to support the planning exercise in the field of the Heating and Cooling Renewables	Paper	40-50 pages	EN	Regional/Local authorities, national, regional agencies, experts/consultants Citizens representative Regional business and trade associations Universities Regulatory boards	ISIS and CTI	CO	M26 (draft), M27 (final)
WP7	D7.3	Summary Fact Sheets in English and in the project language	Publication	8-12 pages	National languages: Bulgarian, Greek, German, Latvian, Italian Spanish and EN	Regional/Local authorities, national, regional agencies, experts/consultants Citizens representative Regional business and trade associations Universities, Regulatory boards	ISIS-AEA-CTI	PU	M27

WP.8	D8.1	Dissemination Plan	Working paper	Spreadsheet	EN	Project partners	BSERC	CO	M3, M9, M19,M27
WP.8	D8.2	List of target groups, with indication of contacted ones	Working paper	6-8 pages	EN	Project partners	BSERC	CO	M3,M9, M19, M27
WP.8	D8.3	Visual identity	Working paper	2-3 pages	EN	Project partners	BSERC	PU	M2
WP.8	D8.4	Project website	Website	-	EN	Regional/Local authorities, national, regional agencies, experts/consultants Citizens representative Regional business and trade associations Universities Regulatory boards	BSERC	PU	M4
WP.8	D8.5	Project flyers and posters	Electronic and paper	-	National languages: Bulgarian, Greek, German, Latvian, Italian Spanish and EN		BSERC	PU	M12,M26
WP.8	D8.6	Project Newsletters	Electronic				BSERC	PU	M8, M12,M19, M26,M30
WP.8	D8.7	Project press releases and articles (during the whole project)	Press release		National languages: Bulgarian, Greek, German, Latvian, Italian Spanish and EN		BSERC	PU	M30
WP.8	D8.8	Minutes of the national workshops (6 workshops)	Electronic	4-5 pages per workshop	EN		BSERC	PU	M27-30
WP.8	D8.9	Presentations at other events (national and European)	Electronic (Power point)		EN		BSERC	PU	M27-30
WP 9	D9.1	Set of updated IEE Common Performance indicators including their baseline and assumptions for extrapolation	Working paper	5-6pages	EN	Project partners	ISIS	CO	M5

5.4 Schedule of activities

Project phase / Duration of the project (in months)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
WP 1 Project Management																														
WP 2 Best Practices Analysis																														
task 2.1 Development of criteria for screening																														
task 2.2 Development, dissemination and evaluation of questionnaires																														
task 2.3 Documentation of good practices																														
task 2.4 Lessons learned and synthesis																														
WP 3 Planning Governance																														
Task 3.1 constitution of the NGC																														
Task 3.2 Preparation and Implementation of workshops																														
Task 3.3 Workshop Evaluation																														
WP 4 Capacity building and cost-benefit analysis																														
Task 4.1 Methods and procedures for cost benefit analysis																														
Task 4.2 Capacity building																														
WP 5 Work Organization and Harmonization																														
Task 5.1 Support to the Analysis of the regional SEAPs																														
Task 5.2 Data collection procedures																														
Task 5.3 Development of the reference monitoring procedures																														
Task 5.4 Confrontation with the GCs and lay out of the draft guidelines																														
WP 6 Development of Regional RES H/C plans																														

Annex 1

Project phase / Duration of the project (in months)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Task 6.1* The development of RES H/C plans					B	D			S1	S1	S2	S2	S2	S2	S3	S3	S3	S3	S3	S4	S4	S5	S5							
Task 6.2 Synthesis report on Regional RES H/C plans																														
Task 6.3 Task 6.3 Lay out of a roadmap for the plans implementation																														
WP 7 RES H/C plans lay out																														
Task 7.1 critical evaluation of the work carried out in WP6																														
Task 7.2 Writing and editing of the final guidelines																														
WP 8 Dissem and Comm																														
WP 9																														
Governance Comm. Workshops																														
Dissemination National Conf.																														
Dissemination EU events																														
CGC national dissem events																														
PSC Meetings	x					x					x					x							x					x	
Webinars WP3									x								x													
Webinars WP4										x	x				x	x														
Reports to EACI										PR									IR										FR**
Deliverables		1.0 8.3	3.1 8.1 8.2	2.1 8.4 9.1	3.2 3.3 3.4	2.2 2.3		8.6	4.1 (d) 5.1 8.1 8.2		4.1 5.2	3.5 8.5 8.6 4.2	4.2		6.1 (d)	4. 2	6. 1	3.6 4.3	8.1 8.2 8.6		3.7 6.2 (d)			6.2 6.3 6.4	3.8	7.2 (d) 8.5 8.6	3.9 7.1 7.2 7.3 8.1 8.2			11 8.6 8.7 8.8 8.9
Project phase / Duration of the project (in months)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

* S1, S2,…: this refer to the plans implementation steps outlined in task 6.1

** The Final Report will be due at the latest 60 days after the end of the action. Within these two months after the end of the action only costs related to the final report and to audit certificates are eligible (Art I.11.3 of the grant agreement

6 Impacts and Performance Indicators

a) Overview tables with key outputs, impacts, performance indicators and targets

Specific Objectives, Key Outputs, Impacts and Performance Indicators <u>within the duration of the action</u>:

Specific Objective(s) of your proposal		<u>Key</u> Outputs (products and services) including their quantification where appropriate	Work package(s)		Impacts, with SMART performance indicators and <u>quantified targets</u>	Means of monitoring the achievement of your targets
1. Constitution of permanent "Country Governance Committees" in each of the participants regions	➡	· 4 CGS workshops take place in each of the 6 participant regions that include all relevant stakeholders	WP 3	➡	▪ Six country governance committees constituted ▪ Minimum 10 members per committee participating to the 4 workshops envisaged in the project.	List of the CGC members Control of the workshop minutes
2. Provision of RES H/C development plans for six European Regions	➡	· Six Regional Maps of the RES H/C supply and demand potentials · Six Regional Plans	WP 6	➡	▪ Endorsement of Regional RES H/C plan implementation in each country: the plans have been approved by the regional authorities that endorse their implementation at policy level	Lay out of a roadmap for the plans implementation Signature of the memorandum of understanding The plans are transposed at policy level by the Regional authorities Letters of interest/approval on the action carried out in this project come from external stakeholders
3. Signature by the relevant regional authorities participating to the Country Governance Committees of a memorandum of understanding for the actual implementation of the RES H/C plans at policy level		· Six regional plans will be discussed in the corresponding six regional councils of the participating countries				
4. Production of general methodological and procedural guidance to help the regional authorities to map the demand and supply potential of their territory and be able to match demand and offer through cost benefit analysis in order to meet the Energy Efficiency Directive (with specific reference to Art. 14) as well as the Renewable Energies Directive requirements	➡	· Capacity building of the local authorities and local energy/environmental agencies in the 6 participant regions via 4 webinars of half a day each take place · A document on the "lesson learned" from the development of six RES H/C action plans · Guidelines and tools (to support the planning exercise in the field of the Heating and Cooling Renewables	WP 3,4, 5, 6, 7	➡	▪ Skills to the technical staff of the 6 participating regional/municipal energy departments are enhanced ▪ The participants to the six Governance Committee have approved/agreed with the general methodological guidelines	Report on the capacity building sessions Guidelines produced and used during the project

Specific Objective(s) of your proposal		Key Outputs (products and services) including their quantification where appropriate	Work package(s)		Impacts, with SMART performance indicators and quantified targets	Means of monitoring the achievement of your targets
5 Dissemination of the project achievements at national and EU level	➡	· Increased awareness of target groups and key actors of the project achievements · Networking of target groups and key actors · A national seminars in each of the participant countries including 40-80 participant takes place at the end of the project	WP8	➡	▪ The ministers staff and all the directors of the relevant departments of the related national ministries are informed and involved in the dissemination activities ▪ The directors (or equivalent authority) of the involved regional departments of the regions that do not participate to the project are informed and involved in the dissemination activities ▪ The regional coordination boards (or equivalent) the municipalities associations, the national as well as the main regional energy agencies are informed ▪ The energy utilities at national and regional level, the related industry and professional associations, the consumers associations are informed. ▪ The technical press and the regional/local media are involved The number of the people to be informed largely depends on the country size and structure. It can be envisaged to contact 150-200 people in the largest countries and 80-100 in the smaller ones.	Updated dissemination plan and description of workshops and events including list of participants Number of visitors to the project website Relevant echo in the regional/local press/media Other regions announce to undertake the RES H/C planning exercise on the basis of the input and the lesson learned in RES H/C SPREAD project

Strategic Objectives and Long-term impacts <u>beyond the duration of the action until 2020</u>:

Strategic Objective(s) of your proposal		Expected impacts by 2020
1 The local/regional harmonization methodology and procedures will be implemented Europe-wide		▪ The 60% of the countries participating to the project have approved the plans at national level in accordance with the methodologies suggested by the project. ▪ The 30% of the EU members has applied the planning methodology suggested by the project.
2 The technical committees of the EU regulatory boards will discuss and improve the technical guidelines and tool developed in the project		▪ The technical norms proposed in the project enter in the EU standards for the RES H/C technologies implementation
3. The improvement of the policy making capacity of the regional and local authorities as well as a significant simplification of the bureaucratic procedures concerning the approval of new RES facilities and plants.		▪ The RES H/C planning processes and procedures become part of the regional training activities financed by the EU funds. ▪ The more precise sites identification as well as the simplification of the bureaucratic procedures halves the realization times of the RES H/C investments
4. The increase of the stakeholders and citizens awareness to the value and the use of the local renewable resource		▪ The mitigation of the NIMBY effect due to the increased citizens and stakeholders awareness contribute to the decreasing of the realization time of the RES H/C investments as outlined above.

b) IEE Common performance indicators:

It is important to underline that this project <u>does not</u> provide energy saving or investment effects over its life. It actually aims at providing RES H/C plans that will be approved and then implemented after the project termination. In addition, the accurate calculation of the impacts of these plans on the six pilot regions will be carried out during the project and cannot be estimated at this stage as no reliable data or no data at all, at region level, are currently available. What we then provide here are our best estimations on the impact of the project at medium term, that is, once these plans will be implemented at country level and their effects will start being monitored.

To this end we refer to the Ecofys study[6] and to the Commission's first progress report[7] both cited in chapter 2, as well as to the National Renewable Energy Action Plans (NREAPs) submitted to the European Commission by every Member State in 2010. According to these studies, in the **heating and cooling sector**, 21 Member States even exceeded their planned 2010 shares for renewable energy heating while 6 Member States (France, Ireland, Latvia, Malta, the Netherlands and Poland) did not achieve their planned targets for renewable energy heating and cooling. Nontheless the situation is exected to be notably different up to the year 2020 where the majority of the MSs risks to do not achieve the Commission targets. In particular, the ECOFYS study, which outcomes are based on the projections of the Green-X model, says that a large number of MSs need to speed up RES developments in order to fulfil their 2020 minimum trajectory target if no further policies and measures are implemented. The table below shows the starting and expected RES energy production (in accordance with the Green X model forecast) and the deviation of these

[6] Renewable energy progress and biofuel sustainability, ECOFYS et al, 2012 Report for the European Commission Submission September 2012, Tender Number: ENER/C1/463-2011-Lot2

[7] Renewable Energy: progressing towards the 2020 target (COM (2011) 31 and SEC (2011) 130)

expected production levels from the 2020 targets. For the H/C technologies, the deviation from 2020 target at EU level is about -19,5%, or 20,1 to 20,4 missed Mtoe of RES H/C production in the case of the CPIs (Current policies initiatives) and is around -15,%, or 15.7 to 16.6 missed Mtoe in the case of the PPIs (Planned Policies Initiatives).

Expected deviation from planned EU technology deployment 2012 and 2020[8].

	2010	Expected 2012 ("CPI")	planned 2012 target	2012 deviation	Expected 2020 (CPI)		Expected 2020 (CPI+PPI)		target 2020	2020 deviation	
					Min.	Max.	Min.	Max.		Min.	Min.
Technology	Mtoe	Mtoe	Mtoe	%	Mtoe	Mtoe	Mtoe	Mtoe		%	%
electricity	56.2	62.5	64.3	-2.8%	77.3	77.9	87.1	87.9	104.5	-26.1%	-26.1%
Biomass (solid & liquid)	8.5	9.6	8.7	9.9%	12.0	12.1	14.2	14.5	14.4	-16.7%	-16.7%
Biogas	2.1	2.5	2.9	-13.3%	4.7	4.7	5.2	5.2	5.5	-15.0%	-15.0%
Geothermal	0.5	0.5	0.5	-6.9%	0.8	0.8	0.9	1.0	0.9	-15.5%	-15.5%
Hydro large-scale	26.9	26.1	25.9	1.1%	26.8	26.9	26.8	27	27.1	-1.2%	-1.2%
Hydro small-scale	3.8	3.9	4.1	-5.5%	4.6	4.6	4.6	4.7	4.7	-1.9%	-1.9%
Photovoltaic	1.9	3.0	3.0	0.2%	6.8	6.8	7	7	7.1	-4.9%	-4.9%
Concentrated solar	1	0.1	0.4	-79.8%	0.1	0.1	0.7	0.7	1.7	-92.9%	-92.9%
Wind onshore	12.8	15.9	17.0	-6.8%	17.5	17.9	18.3	18.5	30.4	-42.4%	-42.4%
Wind offshore	0.5	0.8	1.6	-49.8%	3.7	3.7	9.1	9.1	12.0	-69.5%	-69.5%
Tidal/Wave/Ocean	0.04	0.04	0.05	-14.2%	0.2	0.2	0.2	0.2	0.5	-64.7%	-64.7%
heating & cooling	80.6	81.0	70.6	14.7%	84.3	84.6	88.1	89	104.7	-19.5%	-19.5%
Biomass (solid & liquid)	72.2	72.2	60.9	18.6%	74.8	75.1	77.1	77.9	81.6	-8.3%	-8.3%
Biogas	2.0	2.3	1.9	24.0%	2.7	2.7	3.0	3.0	4.4	-38.1%	-38.1%
Geothermal	0.5	0.6	0.9	-32.1%	1.1	1.1	1.3	1.3	2.5	-55.5%	-55.5%
Heat pumps	4.3	4.2	5.1	-17.2%	2.9	2.9	3.1	3.1	9.9	-70.9%	-70.9%
Solar Thermal	1.5	1.7	1.9	-12.2%	2.7	2.7	3.5	3.5	6.3	-56.6%	-56.6%
_Transport-biofuels only	13.6	15.0	16.2	-7.8%	18.9	20.6	19.1	20.8	28.9	-34.8%	-34.8%
1st gen. biofuels	13.6	15.0	15.4	-2.6%	16.7	18.4	16.9	18.6	26.4	-36.8%	-36.8%
2nd gen. biofuels	0.02	0.0	0.9	-100.0%	2.2	2.2	2.1	2.2	2.5	-13.7%	-13.7%
Total	150.4	158.5	151.2	4.8%	180.4	183.1	194.2	197.6	238.2	-24.3%	-24.3%

Source: *Renewable energy progress and biofuel sustainability*, *ECOFYS et al, 2012*

Our estimations on the possible energy impact of our project start then from these figures, in the hypothesis that a correct planning exercise could make possible the achievement of the 2020 Commission targets. Nonetheless our is a pilot project that involves only part of the regions in each country. By year 2020 we conservatively estimate that this project alone could provide 30 per cent of the overall targets at EU level and that could be fully implemented in the 60% on the involved countries (see table on the expected impact at 2020). This implies wide distribution of the results and active regional and national support for the essential follow-up campaign.

The following table shows then the RES H/C production (actually the figures mainly refer to the RES H) estimates for the six countries involved in the project. The 2010 data come from the national NREAPs while the other figures come from the Ecofys study. The data are provided in kToe. The fourth column of this table (Difference Target-2010) shows the additional RES H production the six countries might be achieved in the case the EU goal are reached while the fifth column (Difference Model-2010) shows the additional RE H production reached in a business as usual condition (that is without the necessity of specific reinforcing strategies). The sixth and last

[8] Source: *Renewable energy progress and biofuel sustainability*, *ECOFYS et al, 2012*

column of this table shows the missed RES H production in the case these countries do not reach the 2020 EU targets. Only Austria seems to exceed the EU target thanks to its better policy strategy (but the plan this country is aiming at developing within this project has exactly the scope to assure its ambitious targets).

So, being the target of this project to provide technical and policy support these six countries in order to do not miss the 2020 objectives, the project impact in terms of RES production id indicated in the last column of the table, with the exception of Austria). For this country the production target supported by the model is exactly that provided by the difference between the 2010 production and that estimated by the GreenX model.

So, being the target of this pilot project to provide technical and policy support to these six countries in order achieve the 2020 objective and applying our conservative estimation that only 3-4 countries out of six (or, in an equivalent way, the 60% of the regions in each participating country) fully implement these plans, the project impact in terms of RES production is indicated in column VII, as 60% of the column VI, with the exception of Austria. For this last country the production target supported by the model is exactly that provided by the difference between the 2010 production and that estimated by the GreenX model

				IV	V	VI	VII
	2010 Energy efficiency scenario	**2020 EU Targets**	**2020 Model estimation**	**Difference Target - 2010**	**Difference Model - 2010**	**Difference Target-Model**	**Actual estimated production due to the project impact**
Austria	4.070	4.179	4.871	109	801	801	801
Bulgaria	923	1.103	927	180	4	176	106
Greece	1.160	1.908	1.356	748	196	552	332
Italy	5.497	10.456	6.151	4.959	654	4.305	2.584
Spain	4.258	5.645	3.584	1.387	-674	2.061	1.237
Latvia	1.020	1.395	888	375	-132	507	305
Total	16.928	24.686	17.777			8.402	**5.365**

*For Austria the target production is that indicated in the fifth column

To calculate the corresponding tons of CO2 avoided it is important to know the main *fossil* fuel used by the six countries for heating purposes. They are:

- Austria: natural gas
- Bulgaria: mainly electricity (approximately 50% of the total) in turn produced by lignite, RES and nuclear (so only lignite produce CO2 emissions). The lignite efficiency is approximately the 25%. This factor has been taken into account for the evaluation of the primary energy saved.
- Greece: gasoil
- Italy: 70% natural gas, 30% gasoil
- Latvia: mainly natural gas
- Spain: 50% natural gas and 50% gasoil

By using the UNFCCC data[9] the resulting CO2 avoided emission are: **15,4** Millions of Tons

For what concerns the total cumulative investments potentially activated by this project, they are linked to the capacity of the plans of stimulating the production of H&C trough the different RES H&C technologies. Since it would be impossible to determine in advance the choices of investors, we may take into consideration the main environmental impact linked to the gap observed between the green X model and the 2020 targets plus the total production achieved by Austria.

Using the CO2 calculation made above, we can calculate the annual impact in metric tons of CO2 as the distance to the European target for 2020 for 5 countries within the project. Considering also a useful life of 10 years as a reference for each project life, we may assume as 154 Mt of CO2 the environmental cost for missed targets for the 5 countries .

To give an economic value to this figures we used the average price for 2011 for a ton of CO2 in the European ETS market (13,5€) that is quite conservative thanks to the effect of economic recession to the ETS prices. The result, equal to 2,08 Billion of Euro is a reference number for what would concern the overall investments linked to the ***extra costs*** for renewable energies for H&C. The actual figure will be larger according to the extra cost of investment for each considered technologies

Overall objective	**Target within the action duration :**	**Target by 2020:**
To contribute to the EU 2020 targets on energy efficiency and renewable energy sources	▪ -	▪ Extra Costs: 2,08 Billion of Euro
	▪ -	▪ 5.365 ktoe of RES H production
	▪ -	▪ 5.683 ktoe of Cumulative Primary energy savings
	▪ -	▪ 15,4 Cumulative Reduction of greenhouse gas emissions M**t CO_2e**

7 EU Added Value

a) Evidence of the benefit of EU collaboration:

The main reason for having constituted an European consortium for this project is the necessity of a mutual learning among different experiences and expertise. The planning exercise is a typical national or local activity but there are many aspects that could greatly be improved by sharing the experiences of other countries and through the partners cross fertilization. For instance, and without being exhaustive, the following practices and knowledge might be shared with mutual benefit:

[9] Nat. Gas: 56,1 tCO2/TJ, gasoil: 74,1 tCO2/TJ, lignite: 101 tCO2/TJ

- The data collection practices, sources and estimation methods
- The experiences concerning the measures instruments and mechanisms
- The existence of set of indicators or other type of tools to evaluate the policy target trade-offs
- The monitoring practices and procedures (what to meter, how to collect and manage the data, who does what in the administration structures)
- The way to take into account interactions, synergies and overlaps among the other regional/local plans

The project go through all these points and the related analysis and achievements will be notably strengthen thank to the iteration with the involved partners, either directly, or by the means of the discussion on the work in progress that will be carried out during the project meetings. Another key issue is the possibility to share the experience of the interactions of the Country Governance Committees with the project plans developers. These committees represent a small cross-view of the operational reality of the countries involved in the project and thus the lessons learned from their different way of behaving, their strengths and their idiosyncrasies, can be of great benefit to improve its effectiveness.

The countries that participate to this project have actually very different experiences, knowledge and capacities, institutional frameworks, procedural mechanisms. Probably Austria is more advanced while Bulgaria still does not have any RES H/C plan. The planning experience of the Emilia Romagna region is good but the implementation procedures could result somewhat very slow and complicated. Greece and Latvia, but also Italy, require a more stringent coordination between local and regional plans. Putting in common these problems ad requirements and trying to solve them over the project, not only could be of great benefit or the participating countries, but could indicate a way on how to face and discus these problems at EU level.

b) Geographical focus:

The project address at two different geographical areas:

- the EU 27 countries for what concerns the possibility to replicate or, more simply, take advantage, at EU level, of the lesson learned and the methodological guidelines developed (see also point c);
- the country themselves participating to the project with the aim to extend to their other regions and, where it is the case, at state level, the methods and planning processes carried out in the 6 pilot regions.

This last objective has been recognized as a key point, even if with different extent, by the different state authorities and national energy agencies that either participate to the project or support it.

c) Transferability:

There are several points that can be transferred to the EU countries not participating to the RES H/C project. These points concern both:

- the analysis and the critical evaluation of the actual plan development process in which the problems met, the measures undertaken and the envisaged operating procedures will be analyzed and compared;

- and the provision of guiding methodological principles and criteria.

For what concerns this last point, there are two key topics that will be developed with the precise intent to be transferred to two categories of potentially interested target users: the regional policy makers and the regulatory bodies. These topics are:

- The harmonization analysis between the local – regional and national plans
- The provision of i) reference standard rules for the implementation of a territorial data map on the RES H/C supply and demand potentials, as well as of ii) regulatory procedures for the technologies impact evaluation and trade off analysis.

8 Composition and Rationale for the Consortium

a) List of Participants:

Part. N°	Participant name	Short name	Country code	Profile of the organisation	Main role in the Consortium
CO1	Institute of Studies for the Integration of Systems	ISIS	IT	Consultancy	Project Coordinator and policy and technical expert.
CB 2	Italian Thermotechnical Committee Energy and Environment	CTI	IT	Regulatory Board	Technical expert. Support to the regulatory and standardization aspects of the Energy Plans.
CB 3	Centre for Renewable Energy Sources and Saving	CRES	EL	National Energy Agency	Policy expert. Country leader and RES H/C Greek plan developer.
CB 4	REGIONAL PUBLIC ENERGY ENTITY OF CASTILLA Y LEON	EREN	ES	Regional Energy Agency	Policy and technical expert. Developer of the regional RES H/C plan
CB 5	Black Sea Regional Energy Centre	BSERC	BG	Regional Energy Agency	Policy expert. Country Leader and support to the Bulgarian RES H/C plan development.
CB 6	EKODOMA	EKODOMA	LV	Consultancy	Policy and technical expert. Country leader, responsible for all tasks in the country, heating system on bioenergy & energy planning expert.
CB 7	Austrian Energy Agency	AEA	AT	National Energy Agency	Policy and technical expert . Country leader and RES H/C Austrian plan developer.
CB 8	Association of Rhodope Municipalities	ARM	BG	Municipalities association	Support to the Bulgarian municipal RES H/C plan development.
CB 9	Regional Development Agency of Western Macedonia	ANKO	EL	Regional Development Agency	Support to the regional development plans and especially to the regional energy planning, harmonization with the national energy policies
CB10	Riga Planning Region	RPR	LV	Regional Development Agency	Support to the regional plans development, harmonization with the national energy policies
CB11	Regional agency for environmental protection in Emilia-Romagna Region	ARPA ER	IT	Regional environmental agency	Support to the regional plans development, harmonization with the national energy policies

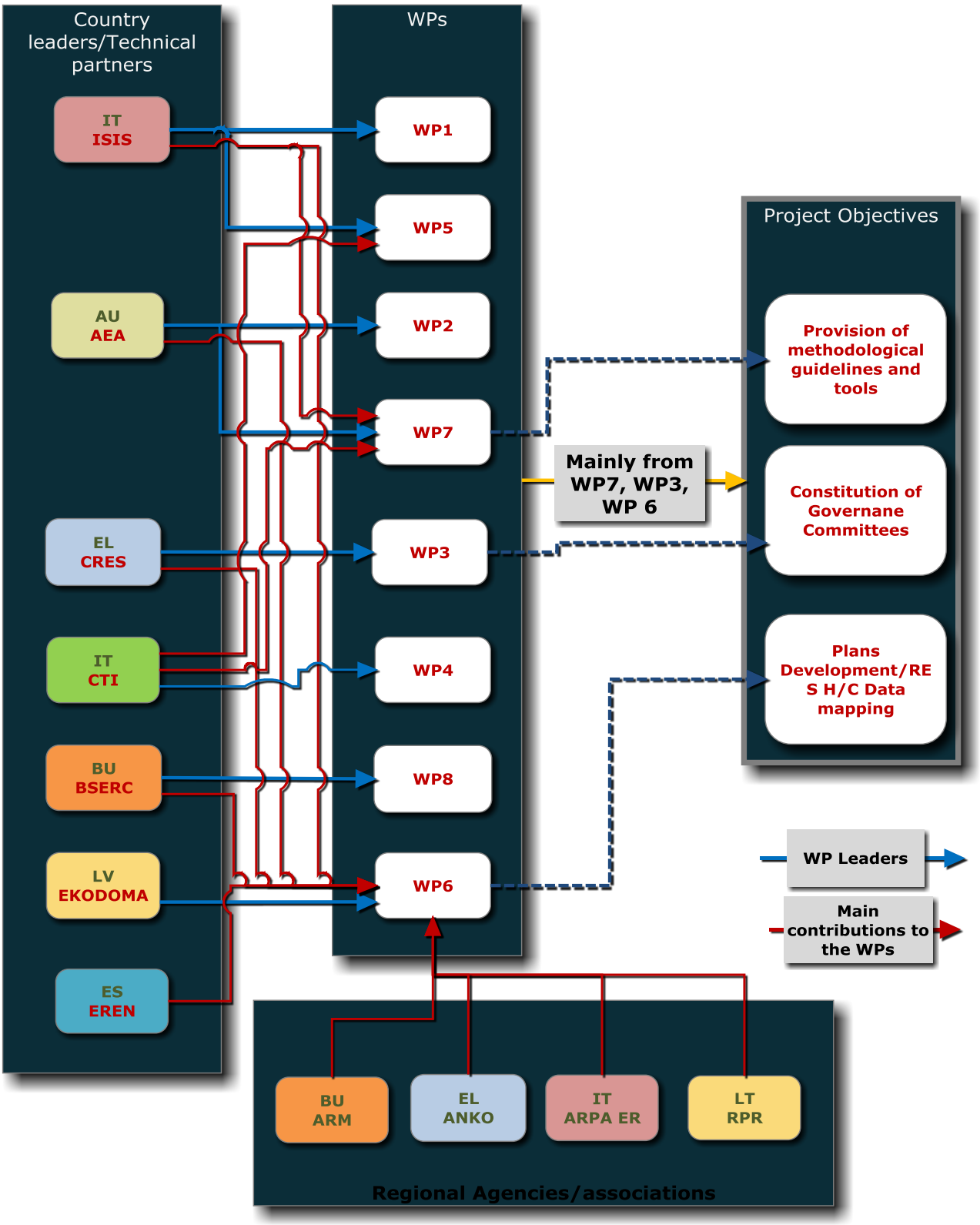
b) Rationale for the composition of the consortium:

The consortium is composed by 11 partners distributed in 6 countries. Four of these countries are situated in the south Europe: three of them, Spain Italy and Greece border the Mediterranean see and one, Bulgaria, the Black Sea. Another country, Austria, is situated in the central Europe and the sixth one, Latvia, in the Baltic see. The main European climatic zones, from south to north, are then represented, that is useful especially for what concerns the transferability of the results of this project to the other EU countries. The predominance of southern countries with respect the northern ones allows examining in depth the possibility to develop cooling systems based on renewables based technologies. The different climatic and orographic conditions of the pilot regions in which the plans will be developed as well as the different industrial, agricultural and urban development status, will furthermore allow comparing and discussing the more suitable technological options and trade offs for the reference territories with a synergic cross-fertilization of knowledge and experiences.

In addition to the different climate conditions, the six participating countries are also very different for what concerns the institutional and legislative situations and, in particular the status of the RES H/C plans development (see also chapter 2). There is then the actual possibility of a knowledge transfer from the more experienced partners, like i.e., the Austrian Energy Agency, to other that are just starting their path for the implementation of these technologies, like, i.e., BSERC and ARM in Bulgaria. In addition to this, the comparison of the different institutional roles of the regions within the countries and the analysis of the pros and cons that this roles imply, especially for what concerns the interaction of the different planning layers from the local level to the state one, will substantially improve the capacity of the involved partners to lay out and implement effective plans.

From the organizational point of view, in four countries out of six: Bulgaria, Greece, Italy and Latvia, there is a technical/institutional partner that is flanked by a regional agency while in two countries: Austria and Spain, there is only one partner. In Austria it is then the national energy agency that acts as institutional actor at national level and, at the same time, takes care of the regional case study while, in Spain, the regional energy agency directly plays both the technical and institutional role in agreement with the regional authority. Finally in Italy, in addition to the project leader and the regional agency, there is also a state regulatory board (CTI) that has the crucial role to provide reference technical guidelines to harmonize the data mapping and the procedures for the measures impact assessment.

The figure below shows the main roles of the partners with respect the WPs and project objectives.


Country leaders/Technical partners
IT ISIS
AU AEA
EL CRES
IT CTI
BU BSERC
LV EKODOMA
ES EREN
WPs
WP1
WP5
WP2
WP7
WP3
WP4
WP8
WP6
Project Objectives
Provision of methodological guidelines and tools
Mainly from WP7, WP3, WP 6
Constitution of Governane Committees
Plans Development/RES H/C Data mapping
WP Leaders
Main contributions to the WPs
BU ARM
EL ANKO
IT ARPA ER
LT RPR
Regional Agencies/associations

9 Co-financing Sources

Participant	Co-financing source	Comments related to case a) or b) above
C01-ISIS	Own resources	The actions foreseen in the proposal fall within the ISIS strategic objectives especially for what concerns the ISIS consultancy activities for the Italian National and Regional Energy Agencies and Authorities
CB2-CTI	Own resources	The purpose of the project is very attuned with the institutional scope of CTI, an Italian leading organization in the field of H/C. Then, CTI is very interested in developing these activities to improve his knowledge and consequently better direct its work.
CB3-CRES	Ministry for the Environment, Energy and Climate Change	After the approval of the project and the signature of the Grant Agreement, an application will be submitted to the Hellenic Ministry of Economics in order the proposal to be co-financed by the programme of the Ministry for the Environment, Energy and Climate Change
CB4-EREN	EREN will cofinanced the project with their annual budget.	This budget will be approved every year in their Administration Board. This budget will be approved every year by the EREN Administration Board. EREN is particularly interested to develop a RES H/C strategy, which will integrate in the furure regional energy planning, in order to foster the Castilla y León region resources in this field.
CB5-BSERC	Own resources	BSERC is interested to co-finance the project, because it will enhance its expertise and contacts with key Bulgarian and EU stakeholders in RES field. This will help BSERC improve its market position as one of the leading specialists in the field.
CB6-EKODOMA	Own resources	Ekodoma will allocate its own resources to this proposal, because it meets with the core business activities of the company and will help to develop client portfolio.
CB7-AEA	Own resources	Own resources will in principle be used for the part of the budget that is not funded. AEA will however try to get co-financing from the Federal Ministry of Economy, Family and Youth and from the regional government of Salzburg. An application for this co-financing can only be done after the project is accepted for funding by the IEE program.
CB8- ARM	Own resources	Due to the raising importance of energy related issues at EU, national and regional level, ARM is committed to act for sustainable energy planning.

		25% co-financing share will be covered by ARM own resources due to high commitment in the project
CB9-ANKO	Own resources	The development and implementation of regional energy and development plans is among the core institutional actions that ANKO is dealing with under the role of Regional Development Agency in Western Macedonia
CB10-RPR	National budget	Source of co-financing – national budget. Planning regions are regional administration authorities, whose main functions are related to planning and coordination of socio-economic development of the region. Main stakeholders of planning regions are local governments (30 in Riga region). Planning regions act in the project on behalf of local governments, which have intention in the following years to improve national heating and cooling plans leading to the decarbonisation of MS heat supplies. The Ministry of *Environmental Protection and Regional Development has established a budget programme, from which projects, useful and necessary for regions, are co-financed. The consortium members, having status of governmental institution applied jointly for co-financing and got confirmation on its assignment.*
CB11-ARPA	Own resources	The objective of the project is coherent with Arpa's role at regional and local level: support to Emilia-Romagna Region in Sustainable development of Regional Energy Planning and to Local Authorities for Sustainable Energy Action Plans (SEAPs)

N. proposta: PDEL-2014-24 del 18/02/2014

Centro di Responsabilità: Direzione Tecnica

OGGETTO: Direzione Tecnica. Presa d'atto dell'approvazione del Progetto IEE/13/599/SI2.675533 Renewables Heating and Cooling, Strategic Actions Development (RES H/C SPREAD).

PARERE CONTABILE

Il sottoscritto Dott. Giuseppe Bacchi Reggiani, Responsabile dell'Area Bilancio e Controllo Economico, esprime parere di regolarità contabile ai sensi del Regolamento Arpa sul Decentramento amministrativo.

Data 20/02/2014

Il Dirigente