



D2.3 Legal Decision Support Tool

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Technical References

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¹ PU = Public

PP = Restricted to other programme participants (including the Commission Services)

RE = Restricted to a group specified by the consortium (including the Commission Services)

CO = Confidential, only for members of the consortium (including the Commission Services)

² R = Document, report

DEC = Websites, patent filings, video, etc.

DEM = Demonstrator, pilot, prototype

OTHER = other

Document history

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V1.1	29/10/2021	Federica Blasi – Sergio Pinotti (Spinergy)	Review





V1.2	3/11/2021	Christa de Ruyter (S-ISPT)	Updated version
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Project Summary

The R-ACES project is an initiative promoted by 7 partners from 6 European countries, with the vision to support high-potential industry parks and clusters to become fully fledged ecoregions that reduce emissions by at least 10%. R-ACES means a step-change in the contribution of European Industry to the climate targets of the EU. The industry sector after all represents 25% of all energy demand – and 50% of the total cooling and heating demand on the continent; yet only 16% comes from renewables. By focusing on collective measures and clustering, the efficiency of industry can be drastically increased.

The focus of R-ACES therefore is to turn high-potential, high-impact industrial clusters into ecoregions that achieve at least a 10% reduction in emissions. They do so by exchanging surplus energy, making extensive use of renewables, and tying everything together with smart energy management systems. An ecoregion is a geographic area where energy and information exchanges occur between various companies and actors to reduce waste and energy consumption. Ecoregion can be centred on an (eco-)industrial park or (eco-) business park, linked to its surroundings by a 4th/5th generation district heating/cooling network.

R-ACES is the capping stone, condensing the knowledge and experience gathered throughout EU and national projects into a set of three focused tools, namely a self-assessment tool, a legal decision support tool, and a smart energy management platform for clusters. The tools are embedded in support actions built around peer-to-peer learning, more formal coursework and webinars, and serious games. Together they enable a cluster to really become an eco-region and set up meaningful energy collaboration. The entire package of tools and support is aimed at the high-potential clusters identified in the European Thermal Roadmap. It will be validated in three eco-regions, actively deployed in another seven regions, and disseminated to identified ninety regions European wide. In addition, the tools and support methodology will be made available to third parties in a sustainable way after the end of this project.





Partners



Institute for
Sustainable
Process Technology

<https://ispt.eu/>



Condugo

<https://www.condugo.com/>



<http://www.spinerogy.it/>



<https://www.energycluster.dk/>



<http://www.energycluster.it/en>



<https://www.pomantwerpen.be/>



<https://www.esci.eu>



<https://www.euroheat.org/>





Executive Summary

R-ACES has the ambition to equip practitioners with capacities, knowledge, and skills to make them confident and well informed about the possibilities of energy cooperation. At the same time, we want to support them with an implementation approach that fits their specific needs.

To achieve this goal, several tools are developed: a Self-Assessment Tool, a Legal Decision Support Tool, and an Energy Management Platform. In this deliverable, we describe the several steps taken to come to a Legal Decision Support Tool. We also describe the first public release.

Key Words

R-ACES keywords

Industrial Symbiosis, Energy System Integration, District Heating and Cooling, Energy Cooperation, Ecoregion, Eco-Industrial Parks

Deliverable keywords

Legal contracts, Tool, Starting Energy Cooperation

Disclaimer

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Table of Contents

1	INTRODUCTION	7
1.1	OBJECTIVE OF THE WORK PACKAGE 'DEVELOPMENT'	7
1.2	OBJECTIVE OF THE LEGAL DECISION SUPPORT TOOL	7
2	DEVELOPMENT PROCESS	8
2.1	TENDERING PROCESS	FOUT! BLADWIJZER NIET GEDEFINIEERD.
2.2	DEVELOPING THE TOOL CONTENT	8
2.3	BUILDING THE WEB-BASED VERSION OF THE TOOL	9
2.4	REVIEWING PROCESS	9
2.5	DEVELOPMENT OF FINAL VERSION	10
3	FIRST PUBLIC RELEASE	10
4	CONCLUDING REMARKS	13
5	ANNEXES	14





1 Introduction

1.1 Objective of the work package

‘development’

In the scope of the work package ‘development’, we aim to develop three different tools (a Self-Assessment Tool, a Legal Decision Support Tool, and an Energy Management Platform) to enhance energy cooperation in industrial clusters. An important aspect of this development is meeting the needs of the target group, to ensure the tools will be used in the end. The needs are identified through interviews with energy managers from the industry, cluster/site managers and policy/governmental persons. The development of the R-ACES Tool Box follows these interviews, starting with the Self-Assessment Tool, a Legal Decision Support Tool, and an Energy Management Platform.

The Self-Assessment Tool¹

The Self-Assessment Tool helps ecoregions to determine the next steps they have to take in the energy cooperation process. The tool exists of a number of questions practitioners have to answer. Based on the answers, the practitioners will get a score and some practical considerations they should take into consideration.

The Legal Decision Support Tool²

The legal decision support tool supports practitioners by giving the legal decision support for joint contracts. A low threshold for usage is a critical requirement. The tool is self-explanatory, application oriented, using well-defined and clear terminology. The tool is able to deal with a high diversity of local situations.

The Energy Management Platform

The Energy Management Platform supports ecoregions to scout for and follow up on energy collaborations. To scout for opportunities, a heat map dashboard allows the ecoregion to map and overlap excess and demand, thus pinpointing the best energy exchange opportunities. To follow up on the collaboration, a custom Sankey dashboard shows the actual amount of energy exchanged in the energy cooperation.

1.2 Objective of the Legal Decision Support Tool

R-ACES has the ambition to equip practitioners with capacities, knowledge, and skills to make them confident and well informed about the possibilities of energy cooperation. At the same time, we want to support them with an implementation approach that fits their specific needs.

During the first months of the R-ACES project, we discovered that only a few Horizon2020 projects, like SPARC, provide guidance on contractual issues or provide tools for the setup of the legal/governance framework of energy cooperation projects. Some projects that address legal aspects are: SCALER, FIRECE, CE-HEAT, UPGRADE-DH, MAGNITUDE, SAFE-ICE, HeatNet NEWandSPARC2019. This is remarkable, because legal issues are often seen as a major barrier for successful energy cooperation projects, especially in countries where

¹ Tool available on the R-ACES website: <https://r-aces.eu/tools/self-assessment-tool/>

² Tool available on the R-ACES website: <https://r-aces.eu/tools/legal-decision-support-tool/>





such projects are not an everyday practice (Belgium/ The Netherlands/ Italy). In such countries, especially the lack of standardized contracts was often seen as an obstacle. Another often mentioned barrier was the fear for lock-in situations. Exchange of electricity or heat could lead to long term reliance on an outside company. This will restrict the flexibility of the involved companies and possibility for innovation, or the possibility to reallocate the site. This fear for lock-in can prevent the start of energy cooperation activities leaving opportunities to reduce waste heat/cold unused. Based on the considerations above, it was decided to build a legal decision support tool that facilitates business managers, park managers, and local civil servants to deal with legal related aspects of energy cooperation.

One of the tools is a Legal Decision Support Tool that supports regions and organizations to decide on the required legal framework for their energy cooperation project 'in which an energy supplier cooperates with an energy customer'. In this deliverable, the development process and the first public release of the tool are described.

2 Development Process

To develop the tool, multiple steps have been conducted, in figure 1, one can find an overview of all the steps and the corresponding timeline. In the upcoming paragraphs, each development step will be extensively described.

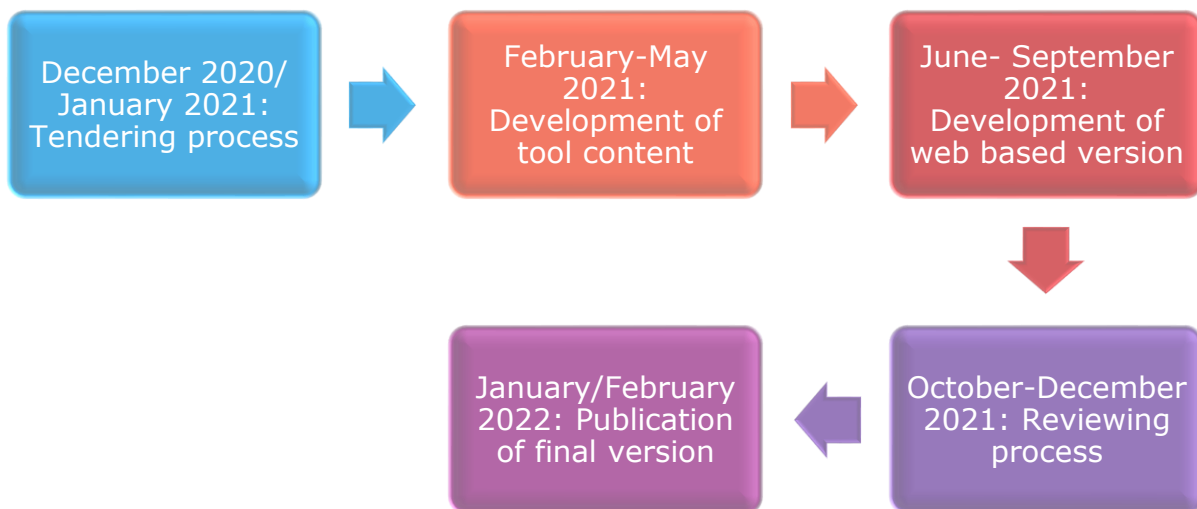


Figure 1: Development steps and corresponding timeline of the Legal Decision Support Tool

2.1 Developing the tool content

The R-ACES project has the vision that the R-ACES tools should really support the practitioners in the ecoregions to realize energy cooperation projects. Therefore, it was determined that the R-ACES ecoregions had an important role in the development of the tool content and the following development trajectory was decided on:

- 1. Kick-off: A kick-off was organized to exchange information between the legal team and the R-ACES consortium. During this meeting, attention was paid to the vision of R-ACES, the legal team's proposal for building the tool, and the development process.**





- 2. Design and construction:** In the months after the kick-off, the content of the tool was developed by the legal team. To make sure that this tool would be in line with the wishes of the R-ACES ecoregions, regular online meetings were held between the legal team and various R-ACES partners.
- 3. Feedback of the R-ACES consortium and regions:** After a first draft version of the content was ready, it was presented to the R-ACES consortium partners. The partners and ecoregion practitioners were invited to provide feedback in the form of questions and remarks to the legal team.
- 4. Final touch by the legal team:** The feedback was used to develop a final version of the tool. Among others, it was decided that some more background information on European Law was necessary. Furthermore, a chapter with information on the relationship between the template and investments in energy cooperation was added to the tool.
- 5. Final delivery of the tool content:** The final version of the tool content is presented by the legal team to the partners of the R-ACES consortium during an online meeting.

The entire process resulted in three Word documents: "R-ACES Contract Template", "R-ACES Guide to Contract Template", "R-ACES Guide to EU Law" (see Annex 2).

2.2 Building the web-based version of the tool

To ensure that the legal decision support tool is accessible and easy-to-use, a web-based version was developed in June- September 2021. The idea is that the tool would be the most useful if the word documents were integrated into a website where one can see the "R-ACES Contract Template" and the "R-ACES Guide to Contract Template" side by side. In this way, practitioners can have the contract on the left side of the screen, and the explanatory articles on the right side of the screen. The explanatory articles provide explanations of the contractual clauses (for an impression, please have a look at section 3). It was further foreseen that it would be helpful if practitioners could fill in the contract template directly on the website and then download the filled in Word file. In this way, eventual changes can be made easily after downloading the contract. Moreover, it was considered important that users could directly ask questions/ leave comments/ react on earlier questions/ comments in the web environment. In this way, a community can be created that constantly updates interested practitioners on the latest developments of energy cooperation's legal aspects. All these considerations were considered while developing the web-based version.

2.3 Reviewing process

After the release of the first version of the web-based tool in October, the tool is validated in the three initial R-ACES ecoregions: (1) Bergamo, (2) Antwerp, (3) Nyborg - The validation period will end in the month 22 of the project (March 2022). A sound methodology for the validation is developed by the consortium³. A short summary is given below.

First some validation criteria have been defined, the most important are: (1) Ease of use by users, (2) Number of users, (3) Ability to engage the users over long period of time,

³ For more information see D3.1 "Validation Methodology": <https://r-aces.eu/downloads/>





(4) Security⁴. The criteria will be validated through both an external and an internal process:

- **External process: Initial users of the tool will fill out a short evaluation after using the tool in which they can give a score (1-10) to different criteria.**
- **Internal process: The ecoregion managers and tool builders will critically look at overall process of using the tool, for example, the number of users. For some criteria, the ecoregion managers will give a score (1-10). Other criteria are formulated as checks (achieved yes/no).**

The tool should get a good score on both externally and internally validated criteria. The feedback on the criteria will be used to improve the Legal Decision Support Tool. At least one update of the tool is foreseen in December 2021.

In addition, the questions/ comments placed on the forum function of the web-based tool will be taken into consideration. These will be useful to understand the needs of the users and to implement the tool so that it as complete as possible.

2.4 Development of final version

The feedback gathered during the validation process will result in an update of the existing Legal Decision Support Tool. It is foreseen that a new release of the tool will be updated on the R-ACES website in the period January/ February 2022. This will, under ideal circumstances, be a final version of the tool. However, also after February 2022, we will keep validating the tool and release updates in case necessary. Future updates after the end of the validation of the tool will be reported in the deliverable D3.4 "Validation Legal Decision Support Tool".

3 First public release

The first public version of the legal decision support tool is now available on the R-ACES website: <https://r-aces.eu/tools/legal-decision-support-tool/>. On the webpage you have four different sections: (1) A tool to help you with legal issues, (2) Legal Decision Support Tool, (3) Download section, (4) Questions and Answers (see below).

In the section "A tool to help you with legal issues" (See figure 2 & 3), one can find some information on what the legal decision support tool is, who can use it, and how you can use it.

Stakeholders can fill in the legal decision support tool directly on the webpage. In figure 4, you find the way it looks like. One can click on "Guide to contract template" to find more background information on the tool and EU Law. One can also fill in the project name and start to fill in the necessary information in the different articles (figure 5). Some articles/ sub articles are optional. The user can switch the button to use the article (figure 6). As one has filled in the entire template, one can accept the terms and conditions and download the template (figure 7). Lastly, one can download the separate empty files and ask question in the user forum section (figure 8).

⁴ The full list of criteria: (1) Ease of use by users, (2) User satisfaction, (3) Amount of human effort, (4) Understandable language, (5) Evaluation and comparison of the expected results, (6) Adaptable to users' company policies, (7) Support to get better contracts, (8) Number of users per region, (9) Ability to engage the users over long period of time, (10) Security, (11) Adaptable to local conditions, (12) Available also at the end of the R-ACES project, (13) Relationship with R0ACES project KPIs, (14) Ensure interoperability between tools





Figure 2: Opening page webpage

A tool to help you with your legal issues

Legal aspects of energy cooperation are perceived as complex and they may slow down or discourage your project. The following tool is designed to lower the legal barrier and help you develop energy cooperation projects between potential suppliers and customers in industrial clusters.



If you have a basic concept of the supply and demand in your energy project, you can go straight to the tool below. It is an easy to use fill-in contract template, with explanatory notes at the side. It will help you to bring focus and to agree on the fundamentals of an energy exchange project (sales and delivery). And it generates a ready to use (simple) contract in one go.

You can also approach your project from the general introduction to the contract template, which provides more context, and use the downloads: the contract template, the guide to contract template, and the guide to EU laws.

We also have a user forum, where you can post comments and share tips and tops. We hope that this helps to further our common goal of realizing more energy cooperation projects.

Figure 3: A tool to help you with legal issues



Guide to contract template +

Contract Generator

Agreement for sale and purchase of energy for

Article 1. Parties, Definitions and Scope +

Article 2. Energy, Profile and Volume +

Figure 4: The legal decision support tool

Article 1. Parties, Definitions and Scope -

1.1 Parties

This Agreement is made between:

ISPT	having its registered office at
Amersfoort	, company number
12345	(the "Seller"), and is hereunder signed for its agreement by:

[signature] _____

Name:

Title:

Date:

Explanation

Article 1 is a generic introduction to the agreement, defining the parties involved, conventions used and stating what the agreement is about (scope). Definitions and interpretation rules can be found in Annex 1.

In this Template, the Parties can sign on the first page, which avoids having to copy their details to the last page, where, conventionally, signatures are located. Users may want to move the names of the parties and the signature blocks to the last page. On each page two dotted lines at the lower left-hand and right-hand corner are available for initialing, which helps identifying the final agreed document.

Exclusivity: If, by way of example, Buyer takes all the electricity produced by Seller's roof-top solar panels, the agreement is exclusive. This should be mentioned in the Scope. Otherwise, it is rare that sellers have restrictions on choosing their buyers, and vice versa.

Figure 5: Preview of article one of the tool

Article 8. Remedies for Failure to Deliver and Accept -

8.1 Failure to Deliver

To the extent that the Seller fails to Deliver the Contract Quantity as Scheduled under paragraph 2.2 and such failure is not excused by an event of Force Majeure or the Buyer non-performance, the Seller shall pay the Buyer as compensation for damages an amount for such quantity of undelivered Energy equal to the product of:

(a) the amount, if positive, by which the price, if any, at which the Buyer, acting in a commercially reasonable manner, would be able to purchase in the market or otherwise generate the quantity of undelivered Energy exceeds the Energy Price; and

(b) the quantity of undelivered Energy.

Such amount shall be increased by other reasonable and verifiable costs and expenses incurred by the Buyer as a result of the Seller's failure.

Explanation

Up to this Article 8, the agreement has defined what happens in the normal course of events. The next articles are about what happens if something does not go as originally planned.

Article 8 is used if Parties are scheduling on a daily basis (Article 2.2) and one of the parties causes the energy delivered to deviate from the agreed schedule. In case of scheduling Gas or Electricity with a TSO, such a deviation is called an "imbalance" and a TSO normally has a penalty scheme for such deviations.

The leading principle is that the agreed price for the delivered energy is paid. In addition, if a failure of party has caused a mismatch between the scheduled energy and the actual delivery, then the Party that has caused the failure has to compensate the other.

If parties agree to "as Measured" in paragraph 2.2, then there is never a failure to deliver or accept. In other words, for this Article to have any effect Parties have to agree to "Scheduled" and intend that failure

Article 8. Remedies for Failure to Deliver and Accept (not used) -

8.1 Failure to Deliver

To the extent that the Seller fails to Deliver the Contract Quantity as Scheduled under paragraph 2.2 and such failure is not excused by an event of Force Majeure or the Buyer non-performance, the Seller shall pay the Buyer as compensation for damages an amount for such quantity of undelivered Energy equal to the product of:

(a) the amount, if positive, by which the price, if any, at which the Buyer, acting in a commercially reasonable manner, would be able to purchase in the market or otherwise generate the quantity of undelivered Energy exceeds the Energy Price; and

(b) the quantity of undelivered Energy.

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The leading principle is that the agreed price for the delivered energy is paid. In addition, if a failure of party has caused a mismatch between the scheduled energy and the actual delivery, then the Party that has caused the failure has to compensate the other.

If parties agree to "as Measured" in paragraph 2.2, then there is never

Figure 6: Preview of article eight of the tool: Used/ Not Used



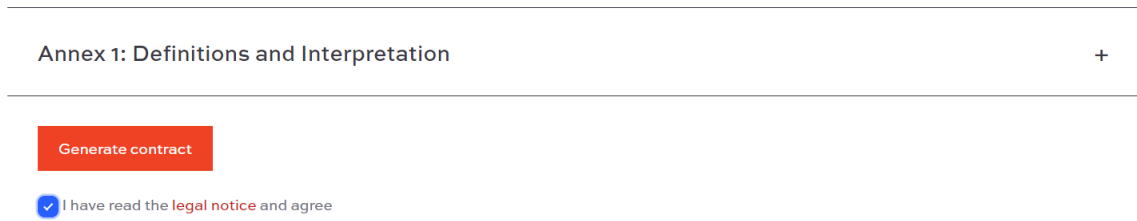


Figure 7: Accept the terms & download the template

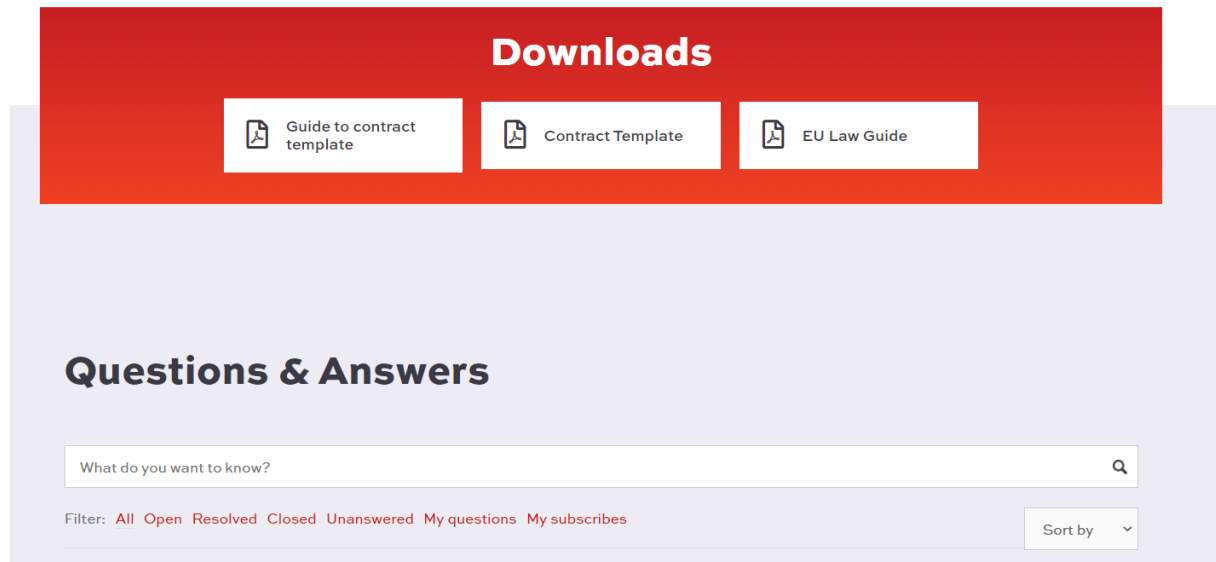


Figure 8: Download the documents & Ask your question

4 Concluding remarks

The R-ACES consortium is very happy to present the Legal Decision Support Tool to you. We hope that the explanation of the development process and the First Public Release were clear. We will continue to update the tool and to develop new materials in order to facilitate you with realizing real energy cooperation project.





5 Annexes

Annex 01 Project Glossary

Definition of Key Concepts in the R-ACES project

Business park: An area of land in which many office buildings are grouped together with a common infrastructure ([Wikipedia](#)). Business parks, like industrial sites, often have similarities in heating and cooling demand. Certain businesses may even have residual energy streams, for example data centers. As such, business parks may also organize as an ecosystem or eco business park (EBP) and become an important stakeholder within an ecoregion.

Eco Business Park: "An eco-industrial park is a community of businesses located on a common property in which businesses seek to achieve enhanced environmental, economic and social performance through collaboration in managing environmental and resource issues. This is known as industrial symbiosis, which is a means by which companies can gain a competitive advantage through the physical exchange of materials, energy, water and by-products, thereby fostering inclusive and sustainable development." ([United Nations Industrial Development Organization](#))

Communicate: professional and public coverage of the project results and achievements, benefits and potential deployment. This will be realised via the adoption of a large variety of distribution channels, including already existing platforms focusing on energy cooperation in industrial sites and business parks and energy exchange/cooperation at large.

Disseminate: exploitation of the project results to relevant stakeholders in the regions. It intends to ensure a low threshold in accessibility, usage of R-ACES tools and methods. This includes access to the tools, to the use case libraries and to the training and capacity building material and related self-explanatory instruction manuals.

DHC: Abbreviation of District Heating and Cooling. A system for distributing heating/cooling generated in a centralized location through a system of insulated pipes for residential and commercial heating requirements such as space heating/cooling and water heating/cooling.

4th generation DHCs: "4GDH systems provide the heat supply of low-energy buildings with low grid losses in a way in which the use of low-temperature heat sources is integrated with the operation of smart thermal grids. Smart thermal grids consist of a network of pipes connecting the buildings in a neighbourhood, town centre or whole city, so that they can be served from centralised plants as well as from a number of distributed heating and cooling producing units (or decentralised units) including individual contributions from the connected buildings. The concept of smart thermal grids can be regarded as being parallel to smart electricity grids. Both concepts focus on the integration and efficient use of potential future renewable energy sources as well as the operation of a grid structure allowing for distributed generation which may involve interaction with consumers." (adapted from Lund et al, Energy 68; 2014, p1-11).

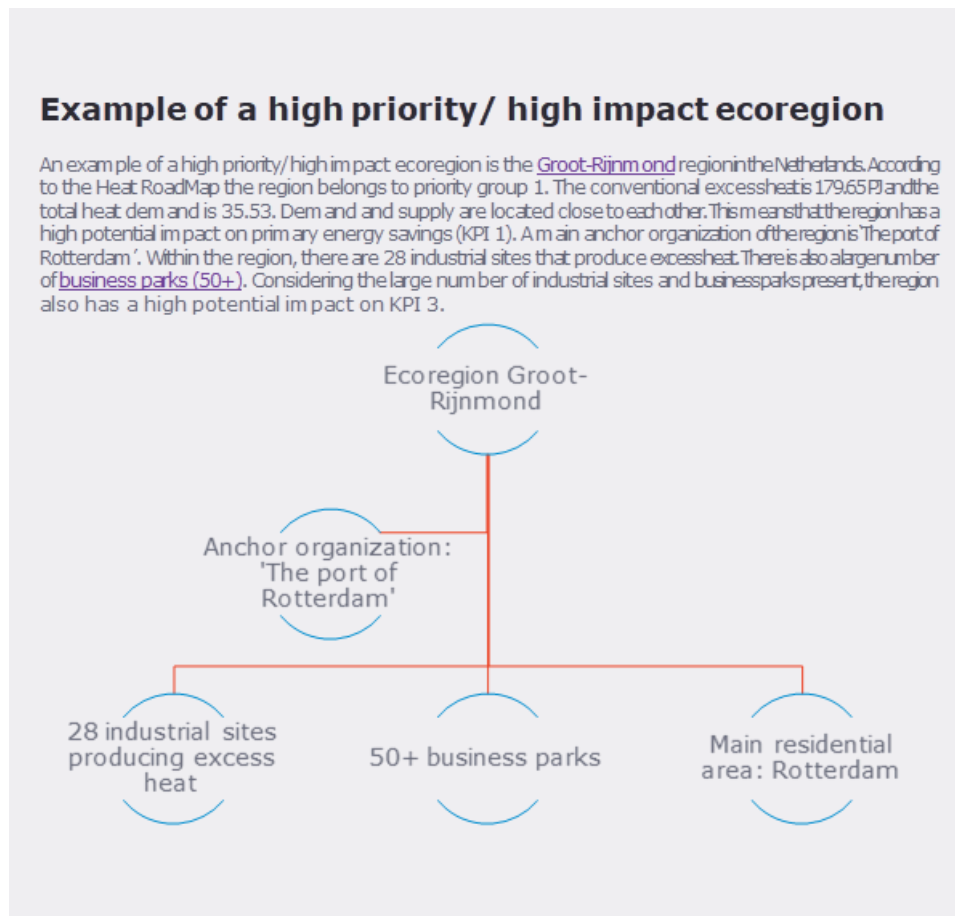
5th generation DHCs: "5GDHC is a highly optimized, demand-driven, self-regulating, energy management system for urban areas. Its key features are: 1) ultra-low temperature grid with decentralized energy plants; 2) closed thermal energy loops





ensuring hot and cold exchange within and among buildings; 3) integration of thermal and electricity grids.” (D2grids, Interreg NWE)

Ecoregion: An ecoregion within the R-ACES project is a geographic area where energy and information exchanges occur between stakeholders of various types to reduce energy consumption. Geographical size does not matter (the size of an ecoregion can be as small as a business park or as large as a city). Important is that an ecoregion relies on an anchor organization responsible for managing the area (for example park management). Another aspect is the proximity of stakeholders to ensure interconnected energy flows (continuity of supply, quality of supply, quantity). Within an ecoregion, a wide range of assets could be involved: office parks, data centers, multimodal centers, technological centers, agro-centers, science parks, brain parks, lighthouse parks, chemical parks, eco-industrial parks, and cluster/business parks. For the demand of heat, also residential areas could be taken into account. As such, the term ecoregion functions as an ‘umbrella term’.



High priority region: A high priority region is an Ecoregion, as defined above, that has balanced potential match of heating/cooling supply and heating/cooling demand in both quantitative (amount of heating/cooling) and qualitative (temperature, form of heat) terms. The region should be identified by heat roadmap studies (for example, the Heat RoadMap Europe or Stratego) or other research activities. In addition, the regions should have networking possibilities. The regions can include industrial sites, business parks and residential areas.

[The table below gives an indication of the priorities.](#) R-ACES will focus on priority group 1 +2.



Table 2.19. Excess heat ($E_{heat,o}$) and heat demand (Q_{tot}) characteristics for the definition of priority groups to identify heat synergy regions

Priority group	Characteristics		Priority status	Comment
	Excess heat ^a [PJ/a]	Heat demand ^b [PJ/a]		
1	$\Sigma E_{heat,o} > 10$	$Q_{tot} > 10$	Very high	High levels of both $E_{heat,o}$ and Q_{tot}
2	$1 < \Sigma E_{heat,o} < 10$	$Q_{tot} > 10$	High	Moderate levels of $E_{heat,o}$ and high Q_{tot}
3	$\Sigma E_{heat,o} > 10$	$1 < Q_{tot} < 10$	Moderate	High $E_{heat,o}$ and moderate levels of Q_{tot}
4	$1 < \Sigma E_{heat,o} < 10$	$1 < Q_{tot} < 10$	Low	Both $E_{heat,o}$ and Q_{tot} at moderate levels
0	$\Sigma E_{heat,o,max} < 2.5$	$Q_{tot,max} < 25$	No priority	Both $E_{heat,o}$ and Q_{tot} at low levels

^a Maximal theoretical levels of annually available excess heat.

^b Space heating and domestic hot water preparation in residential and service sectors.

High potential region: Within the project proposal, sometimes the term high potential ecoregion is mentioned. From now on, this term will not be used within the scope of the R-ACES project.

High impact (in R-ACES terms): Regions that have a high potential impact on the R-ACES KPIs. More specifically, regions are meant that have a high potential impact on KPI 1: Primary energy savings, and KPI 3: Number of plant sites and number of industrial parks where businesses commit to energy cooperation.

Energy cooperation: Energy cooperation activities between industries, which include physical clustering (e.g., of buildings and processes, energy exchange, collective production) and/ or service clustering (e.g., joint contracting). Both can deliver a more stable cumulative demand, economy of scale for larger installations with higher efficiencies and smaller spatial footprint and an optimized demand response. Within R-ACES, the focus is mainly on energy cooperation through the exchange of heating and cooling.

Energy Management Platform: is an ICT-tool that makes energy flows transparent; allows energy consumption and production to be allocated to specific installations, stakeholders and nodes; and identifies anomalies and opportunities. A key feature is that it is very easy to use for a wide range of stakeholders. In this way, it is possible to deploy it in a cluster and give access to the different company and cluster managers – each at their level of detail and with the information they should have access to. On the ecoregion level, there will be a dashboard that shows different energy flows.

ESCO: Abbreviation for Energy Service Company. An ESCO is a business that provides a broad range of energy solutions including designs and implementation of energy savings projects, retrofitting, energy conservation, energy infrastructure outsourcing, power generation and energy supply, and risk management.

Facilitator: someone who helps to bring about an outcome (such as learning, productivity, or communication) by providing indirect or unobtrusive assistance, guidance, or supervision. This task does not include technical expert know-how, instead facilitators are trained to facilitate interaction between multiple actors.

Industrial cluster: Within the project proposal, sometimes the term Industrial cluster is used. From now on, this term will not be used within the scope of the R-ACES project.

Industrial park: Within the project proposal, sometimes the term Industrial park is used. From now on, this term will not be used within the scope of the R-ACES project.

Industrial region: Within the project proposal, sometimes the term Industrial region is used. From now on, this term will not be used within the scope of the R-ACES project.

Industrial site: An area zoned and planned for the purpose of industrial development. An industrial site can be thought of as a more "heavyweight" version of a business park or



office park, which has offices and light industry, rather than heavy industry. They may contain oil refineries, ports, warehouses, distribution centres, factories, and companies that provide manufacturing, transportation, and storage facilities, such as chemical plants, airports, and beverage manufacturers ([Wikipedia](#)).

(R-ACES) Learning community: Local group of stakeholders that are (a) directly involved with the energy collaboration on a site; and (b) engaging in both organised and informal exchange of knowledge and best practices over the course of the project period. These groups are the first beneficiaries of instruments like serious gaming. Learning communities from different sites in this project will eventually be brought into contact with each other to further stimulate the exchange of best practices.

Learning network: "Allow for enduring relationships built on trust to develop among companies within an industrial site. In turn these relationships encourage information sharing, creative solutions, long term planning and governance among stakeholders. Social aspects increase interactions among stakeholders and strengthen collaborations and partnerships including industrial ones" (Scaler, 2018). To establish such learning networks, the R-ACES project will use learning communities.

(R-ACES) Legal decision support tool: A tool that supports practitioners by giving the legal decision support for joint contracts. A low threshold for usage is a critical requirement. The tool is self-explanatory, application oriented, using well-defined and clear terminology. The tool should be able to deal with a high diversity of local situations. For practical reasons, the name of the legal tool might change during the R-ACES process. In this case, the consortium will be informed.

LESTS framework: Abbreviation for Legal, Economic, Spatial, Technical and Social/Managerial. LESTS is a framework that is used in the project to categorize barriers and drivers in ecoregions. The different categories include: Legal, e.g. liabilities, regulatory requirements, third party contracts, service agreements, rules; Economic, e.g. cost savings, waste/ resource recovery value, funding mechanism, taxes & environmental considerations; Spatial, including geographical proximity, planning rules and environmental considerations; Technical, e.g. sharing and cascading resources, system stability, facilities; Social/Managerial, e.g. with regard to workers, consumers, local communities employment, community engagement, and capacity building.

Lock-in: Exchange of by-products will lead to long term reliance on an outside company, which will restrict flexibility of the involved companies and possibility for innovation, or possibility to relocate the site.

Longlist (for example longlist of regions): Exists of lists of items (rows), for example regions, that have been selected on the basis of loose selection criteria (columns). The long list is a first step in creating a short list. The long list should cover all potential subjects that might be of interest to the short list. Example:

Region	Region	Country	Source	# DHCS	# Industrial sites	# Business parks	Contact person	Contact details
1	Maasvlakt	Nederland ...						
2	Chemelot	Nederland ...						
3	Terneuzen	Nederland ...						

Long-term: Long-term impact of R-ACES is gained after the end of the R-ACES project (in KPI terms).

Peer2peer: A network of peers (R-ACES stakeholders) that perceive each other as equal. The peers interact with each other in order to learn from each other. The peer2peer learning context is a formal or informal setting, in small groups or online. Peer learning manifests aspects of self-organization. By this is meant, that there is no hierarchical structure within a peer2peer network ([Wikipedia](#)).





(R-ACES) Self-assessment tool: A tool that helps ecoregions to determine the next steps they have to take in the energy cooperation process. The tool exists of a number of questions practitioners have to answer. Based on the answers, the practitioners will get a score and some practical considerations they should take into consideration.

Serious gaming: A method for learning-through-experience that presents participants with a case study in which they have to play pre-assigned roles to each reach a pre-defined objective as quickly as possible. The interactive & competitive gaming element increases the attractiveness and the learning outcome of the case study. Serious gaming addresses cooperation elements among a large variety of practitioners and focus at creating acceptance and awareness, where the learning communities focus at sharing experiences between peers.

Shortlist (for example shortlist of regions): List of items, for example regions, that have been selected from a long list on the basis of (strict) selection criteria. Hereby, the advantages and disadvantages of each item are considered ([OpenLearn](#)). The shortlist contains items that have a high potential and likelihood to contribute to the R-ACES goal.

Short-term: Short-term impact of R-ACES is gained during the R-ACES project.

Use case: A written description of the sequence of steps performed by an ecoregion to come to fruitful energy cooperation.

Use case library: A library that contains multiple use cases.





Annex 02: Word version of the Legal Decision support Tool

File 1: R-ACES Contract Template

File 2: R-ACES Guide to Contract Template

File 3: R-ACES Guide to EU Law

