



# Dalarna

## - Pilot region for green growth

Challenges, keys to success and  
recommendations



Energy intelligent Dalarna  
PILOT REGION FOR GREEN GROWTH



LÄNSSTYRELSEN  
DALARNAS LÄN  
County Administrative Board  
of Dalarna, Sweden



# The Government's appointment of Pilot regions

The Government appointed Dalarna as a Pilot region for green growth in August 2010. Representatives from Energy Intelligent Dalarna had been working on receiving this appointment for several years. The counties of Skåne and Norrbotten received similar appointments at the same time.

As background and motivation for the decision, the Government emphasised the central role of the County Administrative Boards in implementing national climate and energy policies throughout the country. At the same time, the Government noted that the quality of the work by the County Boards varied. They hoped that successful counties would support and inspire other counties that had not come as far, as well as share their experiences at the national level. The Government also emphasised the need to utilise synergies between climate and energy policies and the work with regional development for the purpose of creating new jobs, growth and increased competitiveness.

## **From the Government's directive to Pilot region Dalarna:**

In close cooperation with Region Dalarna, municipalities, the County Council, private and public businesses as well as universities and non-profit organisations:

- **Develop and analyse different working methods and tools** that further green growth. Based on these experiences, produce a **guidebook for other counties**.
- Actively work on **inspiring, supporting and sharing Dalarna's experiences with other counties**.
- Complete detailed **analyses of national control measures** at the regional level in order to identify shortcomings, obstacles and opportunities, and needs for adjustment and supplementation of these.
- Act as a **regional interface and partner in dialogue for the Government and national authorities** during the course of the work in order to point out obstacles and suggest priorities and opportunities for improvement from a regional perspective.
- Act as a **unifying link between various regional and local actors**.

# Contents



<b>Challenges and keys to success within the mission as Pilot Region</b>	4
Act as regional interface and dialogue partner for the Government and national authorities	4
Inspire, support and guide other counties	5
Cooperate with regional and local actors as well as capture and support ideas	6
Develop methods of working and tools	7
Analyse policy levers	11
<b>Recommendations</b>	13
Recommendations to the County Administrative Boards	13
Recommendations to regional and local actors	16
Recommendations to national actors	18



# Challenges and keys to success within the mission as Pilot Region

In “All talk and lots of action”, Pilot Region Dalarna provides a report of the activities conducted as Pilot Region, as well as the challenges and keys to success identified in connection with these activities. Here, Pilot Region Dalarna summarises the overall challenges and keys to success within the Pilot Region commission.

## Act as regional interface and dialogue partner for the Government and national authorities

### **Dialogue with national authorities within the Pilot Region commission**

The Pilot Region work indicates that there is a great challenge in creating a working *cooperation between the national and regional levels* in order to develop, for example, joint tools and working methods for strengthening the regional energy and climate efforts.

Arranging regional sector dialogues in order to discover how policy levers work in practice and presenting the conclusions for the national level is a key method for success. It is however challenging to maintain commitment, as the regional actors deemed only a few of the policy levers and actions as necessary for achieving the objectives encompassed by the 2050 strategy.

### **Cooperation between national, regional and municipal levels**

For a long time, national authorities have been developing areas of contact at County Boards and municipalities that work with “executing” their respective authority’s central task in their own “silos”. The energy and climate objectives need to be accomplished in cross-sectoral cooperation in the form of “collaborative mentality”.



The County Administrative Board of Dalarna would like to see *national authorities coordinate* their work with guidance and support for regional and municipal levels so that individual areas of expertise/administrators receive congruent signals from “silos” and “collaborative mentality”, which should be clarified in the Government’s instructions to authorities and Appropriation directions.

National authorities should *use the County Boards* for conveying guidance information and support for the municipalities’ energy efforts. The County Board of Dalarna also considers that there is much to gain for the national level in maintaining direct interfaces with the regional level in order to receive feedback of experiences.

### **Cooperation between national authorities**

The *Energy Efficiency Board* is the only forum where “energy transition authorities” regularly meet and discuss the questions they have in common. The County Board of Dalarna believes that the board should be re-formed as an energy working committee analogous to the All Party Committee on Environmental Objectives.

## **Inspire, support and guide other counties**

That fact that there are good examples of work within all of the County Boards, but in different areas, indicates that the work of the County Boards in general could be made more effective through increased cooperation. In many cases, good work takes place out in the counties, but it is not documented or shared. We believe that this is a shortcoming regarding effective coordination and exchange of experiences between the counties. The *web-based guide* produced by the Pilot Regions, where other counties have also contributed with good examples of efforts, fills an important function.

The energy and climate cooperation formed by the County Administrative Boards, *LEKS*, has successfully been designed to meet the need of increased cooperation. Now the challenge lies in developing the cooperation further, making it recognised and using the work methods and tools.



# Cooperate with regional and local actors as well as capture and support ideas

## **A collected regional energy cooperation**

Gathering all of the affected sectors and the most important organisations in *the cooperative forum, Energy Intelligent Dalarna*, is a key to success regarding the work with energy and climate issues in Dalarna.

## **Cooperation in sectors**

An important key to success in Dalarna's work has been the method of *creating cooperative forums* for different sectors. The joint action that has come furthest is the dialogue group for the construction and property sectors, Byggdialog Dalarna (Building Dialogue Dalarna). County Boards need to initiate new structures for cooperation where these are lacking as well as support existing ones in their effort to integrate energy and climate issues into their activities.

Experience indicates that time and patience are demanded in order to establish functional forms of cooperation at the level of Building Dialogue Dalarna. Initially, the County Boards need to be the convenors and perhaps even the operating partners.

## **Cooperation with municipalities**

Municipalities have a *key role* in energy transition through their wide-ranging and extensive activities that serve large parts of the community. The mobilisation of the entire municipal organisation in the work with energy transition is a crucial key to success, which is also the purpose of the government support regarding energy efficiency. One key to success in the County Board of Dalarna's work is that the Board places special priority on support to the municipalities.



## Develop methods of working and tools

### **A widened scope regarding regional energy and climate strategies**

Regional energy and climate strategies should be developed further, and if they are lacking, *more perspectives and long-term objectives* to 2050 should be added. An energy system perspective, questions concerning the rational use of global resources as well as growth are all needed in order to create an overall picture. More information about the climate impact of consumption is in great demand, even if there are difficulties with estimates. The climate impact of land use needs to be calculated, even if it is difficult.

### **Analysis of regional energy systems and estimates of potential for renewable energy**

There is *a need for tools to conduct analyses of regional energy systems that are* functional, possible to adapt for different County Boards and not too resource-intensive to use, while at the same time, the benefits of the tools need to be communicated to the County Boards in a proper manner.

Both *long-term national objectives and clear economic requirements for investment* in renewable energy are needed. Regional coordination may be necessary within several areas, for example regarding expansion of the regional power mains for wind power.

### **Popular education, information and disseminating knowledge**

There is a great need to reach out with more information and knowledge so that more people can understand the needs and opportunities, and thus act. The ventures completed can be communicated much more actively. *New ways of communicating energy issues* also need to be developed in order to reach new groups. It is also a challenge to reach outside the traditional groups with the regional energy seminar.

The programme that appoints *local Dala Pilots*, who are role models within their respective areas expertise or branch, is appreciated and successful in sharing good examples as well as reaching more people with information regarding energy efforts.



## Public procurement

Public procurement is a strong driving force in the work with energy transition and can contribute to creating the critical mass necessary for the success of certain environmental technologies. Among politicians, decision-makers and many businesses, there is a general idea that the Public Procurement Act places great limitations being able to demand a certain quality when purchasing goods and services. However, experience shows that it is rather the lack of *competence and methods of expressing oneself during procurement*, as well as lack of resources for following-up whether one has actually received the quality that was agreed upon. The County Board of Dalarna sees the need for knowledge platforms and would like to see the development of energy and climate criteria in procurement.

## Green growth

The effort conducted within Pilot Region Dalarna regarding green growth has strengthened the cooperation between the County Board and Region Dalarna in questions concerning regional development. *The energy issue has been lifted as a high priority question for regional development* and the possibilities are good that this can be made into a region of growth.

Models for use in the efforts towards green growth are not available at the regional level. Estimates of *effects of energy and climate strategies on employment* have been valuable in increasing interest in the opportunities for green growth.

In the *programming for new structural funds*, energy transition needs to be emphasised as a condition for business development, a horizontal environmental objective, an area for strengthening the competitiveness of businesses as well as a possible area of growth. It is important to find *new ways of working*, which bridge the different perspectives on development.

## Energy efficient industry

*A variety of instruments* are needed in order to achieve the efficiency requirements within industries, and the regional and local levels have many of these instruments at their disposal. Motivation now exists to *strengthen the more controlling instruments* in order to reach “the last ones”. However, a great deal of flexibility should be allowed in how each business chooses to work with the energy question.



The *wide-reaching efforts* conducted within Pilot Region Dalarna have provided a good picture of what instruments should be used for different businesses. A large group of small businesses need support measures in the form of tools adapted to the branch within which they work. The County Board's *energy audit checks* have been important in motivating businesses to begin. *Energy consultants* are important channels for reaching businesses, and continued work with developing this is motivated, in order to insure expertise and harmonisation of methods. Coordination between environmental inspection, energy advice and supportive projects are thus necessary.

The *continued work should be conducted using branch-wise efforts*, where available tools can be customised for the business in question, which also facilitates its conveyance to other parts of the country within the same branch. Businesses that have conducted energy audits should be offered support in order to proceed further so that the measures are actually completed.

A number of relatively simple technologically possible energy saving actions are hampered, as they are not profitable enough; thus, *economic support* from the national level might be necessary.

## **Environmental impact assessment and environmental inspection**

The County Board of Dalarna is of the opinion that the Environmental Permit Offices together need to continue working towards achieving a *national consensus* regarding energy issues in consultation and assessment of B-classed activities. The County Boards need to develop the assessment and “requirement level” of energy aspects in consultations regarding impact assessments of A-classed activities, which is handled by the Land and Environment Courts.

Inspection is the only instrument that can insure that reasonable measures are taken; therefore, inspection needs to focus more on this unique role. The County Boards and municipalities generally have limited experience of energy inspection, thus training courses and national inspection guides are needed.

## **Energy transition within the building sector**

The choice of methods and development of methods are the primary reasons behind *the results of Building Dialogue Dalarna*, where decided objectives were broken down and adapted to the level of the participating businesses. The work has been characterised by a developed, process-oriented course of action. Building and property management



processes are complex and usually include long chains of activities in succession. In Building Dialogue's work, many weak points in the chain have been identified and measures have been tested.

Results of the work in Building Dialogue have led to the setting of a *new standard for energy performance* in new construction in Dalarna, which are much lower than the building regulations set by the National Board of Housing, Building and Planning. These regulations should therefore be made more stringent. The County Board of Dalarna sees possibilities for inspiration of other sectors and counties, by the working methods of Building Dialogue Dalarna.

### **Physical planning and building inspection**

It is a great challenge to integrate energy and climate aspects into the municipalities' *comprehensive spatial plans*. The County Boards need to develop guidelines for the re-viewing of plans, as well as support the development of tools and methods that facilitate the municipalities' work with assessing the consequences of different development alternatives.

In the work with *inspection guidance within building and construction*, the County Board has noted that uncertainty exists and that training is needed regarding the administration of energy calculations and their control, in the form of measuring actual energy consumption.

### **Regional knowledge bases and energy control systems**

The County Board of Dalarna is of the opinion that the national authorities do not have sufficient knowledge regarding the role of the County Boards or the regional and local work with energy issues. This causes difficulties in understanding what kind of national support and what knowledge bases are needed in order to advance the work.

The County Board of Dalarna would like to see *national statistics*, where this is possible, with breakdown at the regional level. The County Board of Dalarna has been able, in its uniting role, to develop a joint *energy control system* that all municipalities have joined. The County Boards need to jointly participate in further developing and implementing the use of this tool at the national level.



# Analyse policy levers

## Long-term vision

It is very challenging for the regional and local levels to contribute to the long-term national visions (climate neutral Sweden etc.) when the short-term objectives do not provide enough explicit signals regarding society's expectations and the "demands" that society, in the long term, will place on different activities.

The County Board of Dalarna would like to see national *interim targets, broken down by sectors*, decided upon for up to the year 2050. It is important that we invest the limited investment capital we have "correctly". Economic policy levers are often good, but have problems reaching the real long-term structural decisions. Here, we also need additional instruments, such as legislation. The County Board of Dalarna wants to *sharpen the national economic policy levers* so that taking action in a sustainable direction will be clearly profitable.

## Attach more questions to the strategies

The County Board of Dalarna would like to see closer cooperation between trade and industry and the Environmental Ministry primarily, and the Ministry of Finance, as well as among the national authorities. The advantages identified at the regional level of *including more areas of expertise in the energy and climate strategies* can lead to an even larger effect at the national level.

## Necessity of coordination between national and regional/local policy levers

Certain policy levers work nationally without specific regional/local actions, for example the carbon tax, while other instruments, for example communicative ones, require comprehensive actions by the regional/local level in order to have an effect.

Today, economic instruments are not strong enough so that they alone provide enough incitement for taking action, and the regulating instruments affect only some sectors. The County Board of Dalarna is, however, of the opinion that the collective effect of the policy levers can be increased through developing the use of individual instruments and combining the use of different instruments. A consensus is lacking between differ-



ent authorities and societal levels regarding the justification of policy levers and their effects.

The County Board of Dalarna would like to see stronger instruments and actions from the Government and the national authorities for the market sector, in order to strengthen the supply of more sustainable products.

### **Further development of policy levers**

The County Board of Dalarna is of the opinion that national authorities need to inquire after the experiences and assessments of the County Boards to a much greater degree, direct in the preparatory work of developing national policy levers and actions, so that the County Board's experiences can receive attention earlier than in the committee report for comment. New and more developed instruments may need to be tested at full scale in some cases, before they are applied nationally. Dalarna can and will readily act as a regional test area.



# Recomendations

The County Administrative Board of Dalarna's experiences as a Pilot Region are in accord with the Government's assessments, i.e., that the County Boards play an important role in coordinating and leading the regional work, that working methods and tools need to be further developed and applied throughout society, and that work with development is an important driving force for energy transition. Cooperation between authorities on all levels needs to be strengthened and the County Boards need continued support from the national level in carrying out the national energy and climate policies.

Here, we summarise the conclusions and recommendations from the previous chapter, organised according to the actors at which the recommendations are directed.

## Recommendations to the County Administrative Boards

### **Energy and climate strategies are important policy documents**

Continually develop and supplement the regional energy and climate strategies and their action plans with an energy system perspective, the rational use of global resources, a consumer perspective, development opportunities, the climate impact of land use and long-term objectives to 2050.

Produce estimates of the effects on employment of energy and climate strategies in order to increase interest and see the opportunities for green growth.

Use the available tools for estimating potentials for renewable energy.

Support the work by municipalities with developing and carrying out municipal-wide energy and climate strategies, as well as the municipalities' internal work with energy management (the energy efficiency support).



## **Develop regional forums for cooperation**

Develop ways of working to support regional, action-oriented dialogues and processes. These should be financed within the framework of the new structural funds and from other regional development funds.

Take initiative to, and establish regional cooperation within sectors in order to create forms for a coordinated energy effort in different sectors, so that all interested actors can be involved in the work. It is also important to focus on working methods in these networks. Here, Building Dialogue Dalarna's way of working can provide inspiration.

Offer municipalities and other actors support regarding expertise and methods regarding public procurement.

Contribute to coordination between environmental inspection, energy advisement and supporting projects by different regional and local actors.

## **Sharpen your own tools**

Set a good example by consequentially exhibiting a rational use of energy in your own organisation – buildings, formats for meetings and transport.

Strengthen the internal cross-sectoral work so that all areas of expertise actively participate in energy and climate efforts and integrate this into their existing activities.

Develop ways of working and tools within, for example, environmental protection, spatial planning, building inspection and decisions concerning business support and business/rural area development, with the aim of establishing norms for energy transition and reduced emissions of greenhouse gases, using all of the instruments available to the County Boards, official rulings and other actions.

Use the Rural Development Programme for actions that lead to a climate impact reduction in land use, to a more efficient energy use and increased energy production in the agricultural sector.

Explain energy transition, in programming for the new structural funds, as a condition of business development, a horizontal environmental objective, an area that can strengthen the competitiveness of businesses and as a possible growth area.



## **Support for municipalities and other local actors**

Support comprehensive and action-oriented energy transition in municipalities and contribute to standardising ways of working and assessments so that they are harmonised in the municipalities.

Develop regional planning documentation and provide guidance to the municipalities etc. in their use. Share methods and ways of working that connect energy transition with green growth.

Offer municipalities training and guidance regarding energy inspection as well as within green business development.

Develop guidelines for the review of spatial planning and support for the existing tools and methods that facilitate the municipalities' work with assessing the consequences of different development alternatives.

Highlight models and spread good examples. The efforts within the Dala Pilot Project can provide inspiration for other counties.

Cooperate with associations, organisations and other actors in producing and spreading information in order to reach new groups in society with information about energy issues.

Stimulate work by associations, organisations and other actors with the sharing of knowledge and the influencing of public opinion in order to change basic behavioural patterns and consumption habits among the public.

## **Participate in branch-wise cooperation**

Conduct branch-wise efforts where available tools can be customised for the actual businesses. Offer businesses that have completed energy audits support, so that they can move on and see that they actually carry out the actions.

## **Cooperate more among County Boards**

Identify needs, and together with other County Boards participate in further developing, building support for and implementing new tools in all of the County Boards' networks. Increased cooperation between County Boards leads to a more effective operation.



Document methods and successful efforts so that these can be more easily shared with others.

The Energy and Climate Section of the County Administrative Boards (LEKS) needs to be developed further, become established and administer the work methods, tools as well as other experiences within the frame of Pilot Region, and communicate good examples and experiences with all County Boards. The Energy and Climate Section should coordinate and administer the County Boards' joint web-based guide created by the Pilot Regions.

The Energy and Climate Section has a key role in coordinating the work with energy issues, as well as in providing expertise and working for consensus with national authorities and other actors.

Contribute to a harmonisation of guidance throughout the entire country.

The Environmental Permit Offices need to continue working towards achieving a harmonised view of energy issues in consultations and in assessment of B-classed activities.

## Recommendations to regional and local actors

In this category, we include a number of different actors such as municipalities and their collaborative institutions, energy offices, branch and trade and industry organisations, municipal companies, educational actors and businesses.

### **Cooperate and use synergies between different enterprises**

Create regional energy cooperation that involves different clusters of actors/sectors, such as energy producers, energy distributors, energy consumers, County Boards, regions, municipalities, trade and industry organisations, universities/research, energy offices, educational facilities, popular education, NGO-organisations, etc.

Coordinate environmental inspection, energy advisement and supporting energy projects in order to increase effectiveness in completing them.



See opportunities for growth in green markets through energy transition, and work with this in a manner that connects increased demand with an increase of supply of environmental technology solutions.

Explain energy transition, in programming for the new structural funds, as a condition of business development, a horizontal environmental objective, an area that can strengthen the competitiveness of businesses and as a possible area of growth.

### **The municipalities demonstrate leadership in energy transition**

Set a good example and strengthen the internal cross-sectoral work so that all operations, including the municipal companies, actively participate in energy and climate efforts. Act as a driving force for others within the municipality's geographic area. Provide, and inquire after climate smart and energy intelligent goods and services. Develop expertise in, among other things, Life Cycle Assessment calculations and public procurement in practice.

### **Initiate branch cooperation**

Find ways of starting cooperation within different branches with their own commitments for long-term development of energy work on a broad front, primarily based on existing networks. The branch itself can develop and establish new standards and routines for its energy work.

Apply methods that produced by others for different branches, such as the methods produced within Pilot Region Dalarna for water and sewage enterprises, food shops and ski resorts.

### **Develop communicative instruments**

Use communicative instruments in combination with other policy levers and measures in order to achieve full transmission and a good effect.

Intensify the spreading of information and knowledge in the respective organisations' networks, so that more can gain insight as to the needs and opportunities and can thus take action.



Contribute to an increase of awareness regarding the significance of consumption for the rational use of global resources. The task of the regional level is to stimulate work by associations, organisations and other actors with the sharing of knowledge and influencing of public opinion.

## Recommendations to national actors

### **Decide on long-term objectives and policy levers**

Formulate long-term objectives and policy measures in order to provide clear incitements for action.

Decide on interim objectives broken down by sector, up to the year 2050, in order to provide clear signals regarding society's long-term energy and climate policy and the direction of travel in the work with measures.

Direct special efforts and objectives at the market sector, in order to stimulate energy smart and energy intelligent consumption.

Integrate energy efficiency, energy system perspectives and opportunities for green growth in the Roadmap. In addition, take into consideration the effort to reduce emissions of greenhouse gases when carrying out the Energy Efficiency Directive.

Prioritise long-term efforts such as transport-efficient community planning, increasing the capacity of the railway network, developing the district heating network, making buildings more energy efficient, research concerning industrial processes and training.

Sharpen the economic instruments in order to strengthen the incitement for different enterprises to actually complete possible measures.

### **Better coordination of objectives and policy levers**

Improve coordination of policy levers and measures in order to have the best effect. Consensus is lacking regarding the justification of policy levers and their effects. The County Boards would like to see closer cooperation primarily between the Ministry of Finance and the Environmental Ministry, as well as between the Ministry of Finance and the national authorities – the Environmental Protection Agency, the Energy



Agency, the National Board of Housing, Building and Planning, the Swedish Agency for Economic and Regional Growth, VINNOVA, etc.

Clarify, in the instructions to the national authorities and the Appropriations Directions, the need for increased cooperation between national and regional levels. Regular dialogues with authorities are one way of increasing knowledge about one another's mission and work, as well as increasing cooperation. There is a need for a continued direct dialogue between the Government and the County Boards for feedback of experiences from the regional level.

Improve the coordination of national authority guidance to the regional and municipal levels so that signals are harmonised. National authorities should cooperate more often with the County Boards in conveying guidance and support to the energy and climate efforts of municipalities and other actors.

National authorities should provide municipalities with in-service training in energy calculations for building inspection, in control and on how corrections should be made when the actual energy consumption exceeds the limit value.

Give the Energy Efficiency Board a stronger and more operative role by making it a joint national working committee for energy and climate issues analogous to the All Party Committee on Environmental Objectives.

Support that the regional/municipal work with objectives and measures using national analyses, prognoses etc. are broken down by region.

Emphasise energy transition, in the programming for new structural funds, as a condition for business development, a horizontal environmental objective, an area for strengthening the competitiveness of businesses as well as a possible area of growth.

## **Continually develop objectives and policy levers**

The continuous further develop, supplementation and sharpening of policy levers is necessary if the energy and climate objective are to be achieved. A few of the necessary measures identified within Pilot Region Dalarna are: improved communication in order to reach new target groups, models for working with green growth, branch-wise national efforts and economic instruments that make more actions profitable.

Inquire to a greater degree after the experiences and assessments of the County Boards in their work with developing policy levers and measures, i.e., direct in the preparatory work and not only in their answers to committee reports for comment.



# Energy intelligent Dalarna

**PILOT REGION** FOR GREEN GROWTH

Publication: County Administrative Board, Dalarna