Information on Stockholm County's climate and energy work in connection to the adoption of climate targets for 2030

1. Introduction

In view of the EU Commission's public consultation on a 2030 framework for climate and energy policies, the Stockholm region would like to use this opportunity to notify of the energy and climate work currently being pursued in the region, the challenges that are faced and the objectives/targets and measures that the region has adopted.

The Stockholm region is currently in a state of rapid development. This growth is expected to continue for the foreseeable future. Concurrent to this considerable growth, which is indeed welcome, greenhouse gas emissions must also be reduced by 80-95 per cent progressively up to 2050 in accordance with the stated EU target. It is therefore of great importance that the region's growth and development occur in a way that is sustainable from a long-term perspective.

Large metropolitan areas play an important role in efforts to reduce our global climate impact and the Stockholm region has won recognition for its forward-looking environmental efforts. The ambition of the region is to further strengthen this position and also continue to provide examples of how it is possible to successfully create attractive, energy-efficient and environmentally friendly urban environments. In this document, we would like to share the Stockholm County's climate and energy strategy in the hopes of it serving as a useful resource for the EU Commission and other actors. We would also like to encourage the EU and the Member States to continue to support the efforts of local and regional actors in order to limit the impacts of climate change.

2. The climate and energy strategy for Stockholm County

In March 2013, the County Administrative Board of Stockholm, as commissioned by the Swedish Government, drew up a climate and energy strategy to guide the County's comprehensive efforts related to the climate and energy conversion.[1] The strategy aims to attain the overall national environmental quality objective of "limited climate impact".

2.1 Aim of the strategy

In order to be able to assess whether the County is advancing in the right direction and with the necessary speed in order to reach the overall objective of limited climate impact, five specific targets have been formulated. The five objectives indicate how far the County should have come in attaining the overall objective by 2020.

1) The County's emissions of greenhouse gases excluding trade with emission allowances shall decrease 19 per cent progressively up to 2020 in comparison with 2005. Operations that involve emission allowances shall simultaneously reduce their emissions by 30 per cent

[1] Climate and energy strategy for Stockholm County: http://www.lansstyrelsen.se/stockholm/SiteCollectionDocuments/Sv/miljo-och-klimat/klimat-och-energi/Klimat%20och%20energi/Klimat-och-energistrategi-Sthlm-WEBB.pdf

through 2020.

2) The Region's energy consumption shall be 20 per cent more efficient in 2020 compared to 2008, measured in terms of energy intensity (units of energy per unit of GDP in fixed prices).

3) The climate impact from energy use shall decrease by 30 per cent per inhabitant up to 2020 (tonne of CO2 equivalents) as compared to 2005 and by 40 per cent by 2030.

4) In 2020, 16 per cent of energy used in the transport sector shall be renewable.

5) The County's energy production in 2020 is 90% based on renewable fuels, not including peak load production. By 2030, it will be based 100% on renewable fuels.

2.2 The strategy's action areas

Six areas of engagement have been selected as critical for attaining the region's five objectives. The areas have been chosen based on the feasibility of a regional joining-of-forces, where large gains can be won and where current trends are unsatisfactory.

a. Transport and travel

The transport sector currently constitutes 60 per cent of greenhouse gas emissions in the County which is not included in a carbon credit scheme. Emissions increased by eleven per cent during the period 1990 - 2008. If regional growth continues as projected and in the absence of any adopted measures, road transport emissions will increase considerably through 2030. In 2008, passenger vehicles were responsible for just over 65 per cent of the transport sector's emissions with a climate impact in the County. The gains earned from more efficient vehicles in terms of reduced emissions are effectively nullified by increased travel and travel distances. As such, there needs to be a focus on more efficient transport, increased bicycle travel and additional programmes and actions in order to ensure that collective traffic remains competitive vis-à-vis cars.

b. Energy used in building/construction

The challenges can be summed up as an objective to: phase-out oil and conventional electricity, to make the existing building stock more energy-efficient and to ensure that new construction incorporates energy-efficient solutions. District heating, primarily generated using biofuels and waste incineration, takes care of nearly 65 per cent of heating needs in the region. The majority of the building surface that will exist in 2050 has already been constructed, such that improving energy efficiency will prove to be the greatest challenge.

c. Energy production – new and old systems

This area of action foremost concerns continued conversion to carbon neutral fuels and more efficient systems. Energy production in the form of district heating and combined heat and power is

largely converted to renewable fuels. Biogas and solar energy are renewable energy sources that offer considerable potential for development. The expected demand for vehicle fuel for use in transport in 2020 is expected to be three times higher than the current level. This is why biogas production must be quadrupled by 2020 in order to effectively cover the County's needs. Effective collection of household compostable waste will prove a critical resource for the production of biogas.

d. Social planning, regional structures and land use

In the Stockholm region, co-ordination between different types of transport is particularly important. The functionality of the region's technical supply system (energy, waste, water, materials flow, etc.) is the result of a successful regional co-ordination. These comprehensive and complex systems are currently facing new challenges. Sustainability, flexibility and a safe and efficient supply must be ensured in view of the region's continued growth, climate changes and new environmental requirements. The planning of new and the conversion of existing residential areas has great potential to contribute to efforts to limit our climate impacts and render energy use more efficient.

Since there are many reasons to believe that technical and financial measures will not be sufficient to attain long-term goals, the above-mentioned action areas must be supplemented by an additional two: sustainable consumption and increased knowledge.

e. Increased knowledge and development work

A large part of research taking place in the area of climate and energy focuses on generating improved and more efficient energy solutions, and also looks at how to change human behaviour and consumption. One area that should be further pursued is that of development within systems and processes, and their significance in terms of achieving a society with a limited climate impact. Not only is new theoretical knowledge needed, but also additional practical experiments. In order for these to be made possible, experience from application at the local level is needed, as are local, regional and state actors who dare get involved. A good example of collaboration is that among so-called "Climate municipalities wanting to set the pace in conversion efforts".[2]

f. Long-term sustainable consumption of goods and service

The public sector should set the pace with respect to increased energy efficiency and should use public procurement as a tool to promote innovation and stimulate the growth of climate-efficient solutions. Methods for the provision of improved information and knowledge regarding the environmental impact of goods and services must be developed, as well as methods involving, for example, marking/labelling that provides improved information on the environmental impact linked to a specific product or service, thus increasing the knowledge base of households, as well as their understanding of the need for a decreased climate impact.

[2] www.klimatkommunerna.se

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2.3 Strategy follow-up

One important aspect in the implementation of the climate and energy strategy is effective, continuous monitoring which takes a specific look at key actors. To facilitate monitoring of the implementation of objectives, baseline emissions levels must be clarified. And for this objective to be possible, there must be a manageable and reliable method in place that allows for calculation of greenhouse gas emissions, involving well-defined indicators that are also easy to monitor during implementation. The aim is to provide reliable indicators of the relative magnitude of various sources of climate impact. Exact calculations of emissions are clearly not a feasible option. The most important thing is to be able to make comparisons, for example between municipalities or industries, and also clarify trends over time, i.e. whether emissions are on the rise or decreasing.

For any additional information about climate actions in Stockholm Region, please don't hesitate to contact us.

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References:

Klimat- och energistrategi för Stockholms län:
http://www.lansstyrelsen.se/stockholm/SiteCollectionDocuments/Sv/miljo-och-klimat/klimat-och-energi/Klimat%20och%20energi/Klimat-och-energistrategi-Sthlm-WEBB.pdf

Full fart framåt utan växthusgaser, färdplan 2050 Stockholms län:
http://www.lansstyrelsen.se/stockholm/Sv/publikationer/2012/Pages/full-fart-framat-utan-vaxthusgaser-fardplan-2050-for-stockholms-lan.aspx

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