



# Klimatklivet

## – Support for Local Climate Investments

### Background

The Swedish National Audit Office has reviewed the local climate investment aid programme known as Klimatklivet.

Klimatklivet supports local climate investment, with the aim of increasing the pace at which the environmental quality goal of limited climate impact and its milestone targets are achieved. In 2018, the total programme amounted to SEK 1.5 billion, approximately 14 per cent of the Swedish state's expenditure on environmental policy. Klimatklivet was thus a relatively large item in the state budget, especially in comparison with previous similar investment programs.

The support has been channelled to a wide range of measures and organisational types. The amount of aid per measure has also varied greatly; the smallest measure was granted SEK 4,000 in aid, while the largest received SEK 134 million. Companies, municipalities, housing associations, county councils, etc. (but not private individuals) may apply for Klimatklivet aid.

In collaboration with other central authorities and county administrative boards, the Swedish Environmental Protection Agency administers and makes decisions regarding aid within the context of Klimatklivet. The role of the county administrative boards is to support and guide those within their respective counties who wish to apply for aid. The county administrative boards accept the applications and write an statement of opinion before forwarding the application to the Swedish Environmental Protection Agency, which then renders its decision. In its assessment, the Swedish Environmental Protection Agency may also commission the assistance of other expert authorities such as the Swedish Energy Agency, the Swedish Transport Administration, or the Swedish Board of Agriculture.

## Questions and assessment criteria

The aim is to examine whether the implementation of Klimatklivet has been effective and whether the aid has contributed to achieving Sweden's climate goals in a cost-effective way. The audit covers the following questions:

1. Has Klimatklivet been implemented effectively?
2. Does Klimatklivet contribute to achieving the climate goal in a cost-effective way?
  - a. Given the budget of Klimatklivet, is the aid structured in a manner that maximises the emission reductions?
  - b. Together with other instruments, is Klimatklivet a cost-effective instrument combination for achieving the Swedish climate goals?
3. Has the reporting to the Riksdag been true and fair?

The assessment basis for the Swedish National Audit Office's audit of Klimatklivet is based on the climate policy framework that outlines Sweden's climate goals up to 2045, as well as on the Climate Act, with its requirements regarding government climate efforts. The audit is based on the opinion expressed by the Riksdag that experiences from previous initiatives should be taken into account and that the government should regularly provide the Riksdag with reports outlining how the funds are used and the impact of the measures that are introduced. The assessments are also based on the opinion of the Riksdag that climate policy should be effective in the long term and be conducted in such a way that greenhouse gas reductions are reconciled with growth, and that the application of dual instruments in climate policy is problematic and should be avoided.

## The results of the audit

The overall conclusion of the Swedish National Audit Office is that Climate Leap has largely been implemented effectively, but that the support scheme is not part of a cost-effective combination of instruments for achieving the Swedish climate goal for 2030. The Swedish National Audit Office sees opportunities for improvement in the implementation, design and reporting of the aid.

### Has Klimatklivet been implemented effectively?

The Swedish National Audit Office believes that the implementation of Klimatklivet is essentially functioning effectively, but that there are some shortcomings. These deficiencies relate, for example, to the fact that there is no overall risk analysis, that certain ambiguities

exist with regard to the distribution of tasks between authorities, and that the guidance provided to applicants is unclear as to the type of information needed to be able to take decisions in individual cases.

*A brief start-up phase risks leading to incorrect decisions*

The start-up phase of Klimatklivet was very brief and was characterised by a series of difficulties, because the Swedish EPA's guidance for the support system was developed in parallel with the start of the processing of grants. Likewise, no case management system was in place and this led to a certain amount of manual processing and handling in dual systems. It is unclear whether the rapid introduction of Klimatklivet has affected the decisions regarding which measures ought to be granted aid, but in certain cases, there is a risk that incorrect decisions were made.

In order to avoid making incorrect decisions that threaten to reduce the impact of the aid, it is the assessment of the Swedish National Audit Office that it is preferable to allow the authorities to develop a functional work process before a complex system such as Klimatklivet is initiated.

*Overlapping and unclear work tasks leads to some duplication of work*

The work process for Klimatklivet is extensive and contains many steps, from the time an application is submitted until a decision can be made. The Swedish National Audit Office has mapped the work process and notes that in practice, certain county administrative boards undertake tasks beyond what is stated in the guidelines from the government and the Swedish Environmental Protection Agency. This is especially true when it comes to control calculations of the climate benefits and cost-efficiency of the projects, which are specified in the applications and carried out by both the county administrative boards and the Swedish Environmental Protection Agency.

There is also some ambiguity in the division of labour concerning data related to requests for supplementary information and the monitoring of completed measures. It is the assessment of the Swedish National Audit Office that overlapping and unclear tasks lead to the duplication of work, a work area in which the authorities must continue their improvement work.

*To reduce vulnerability, internal guidelines for the work processes are needed*

Less than half of the county administrative boards have internal guidelines for the processing of Klimatklivet cases. The Swedish National Audit Office finds that among other things, a lack of guidelines risks making it difficult for the authorities to identify and eliminate unnecessary work steps and also increases vulnerability in the event of, e.g., personnel changes.

*Risk assessment is needed to identify the need for monitoring*

The audit shows that there no overall risk analysis procedure for Klimatklivet exists which includes, e.g., the risk of irregularities and human resources vulnerabilities.

The Environmental Protection Agency has addressed risks relating to the beneficiaries' implementation capacity and the risk of having to recover disbursed funds, but it has not conducted any overall risk analysis for the implementation and management of Climate Step. Therefore, it is unclear whether that authority has identified and addressed all significant risks.

*Appropriate follow-up methods remain unclear*

The Swedish Environmental Protection Agency has not yet established how the follow-up of Klimatklivet should be implemented but is working on the creation of an evaluation plan. As a result, applicants remain unaware of which data the Swedish Environmental Protection Agency may request from them, which risks complicating future follow-up measures. It is the opinion of the Swedish National Audit Office that an evaluation plan should be available from the start of the programme, in order to ensure that the correct data can be collected.

*Administrative costs are higher than for other support schemes*

Overall, the per-case administrative costs for Climate Step (excluding the applicant's costs) are comparable to its predecessor, the Klimp programme, but are significantly higher than for other support schemes. The administrative costs for Klimatklivet applicants are relatively low. The cost in relation to disbursed grants is at a normal level, and significantly lower than the preceding programme, Klimp. Investment aid has previously been criticised for having high administrative costs compared to more general economic instruments such as the carbon tax, and this criticism may therefore also apply to Klimatklivet.

The aid appears to be very complex, and cases must be supplemented to a much greater extent than for other comparable support schemes. In more than half of all cases, supplementary information is needed to process the application. The complexity is largely due to the fact that the aid can be granted to a wide range of measures. Some of the information required by the Swedish EPA as a basis for its decisions is not clear from the application forms and guidance documents. On the other hand, other information collected via the application form, such as how the measure affects other environmental goals and employment, is not used at all. The Swedish National Audit Office considers that such data should only be collected if the intention is to use them.

## Does Klimatklivet contribute to achieving the climate goal in a cost-effective way?

The Swedish National Audit Office finds that the estimated reductions and the additional cost of measures in Klimatklivet are not correctly calculated. The Swedish National Audit Office has identified a few shortcomings that prevent Klimatklivet from generating cost-effective measures for achieving the intermediate targets entailed in the environmental quality goal of 'Limited Climate Impact'.

The calculation examples of the Swedish National Audit Office indicate that if one takes into account the interaction with other instruments, the administrative costs of the aid, etc., the marginal cost of reductions is significantly higher than is indicated by the Swedish EPA's statistics. The marginal costs are higher than what the analysis of the Commission on Environmental Goals suggests is necessary in order to achieve the climate goal for 2030. The Swedish National Audit Office is therefore of the opinion that Klimatklivet is not part of a cost-effective combination of instruments for achieving Sweden's climate goal for 2030. For example, raising the carbon dioxide tax would be more cost-effective, but this would be difficult to implement for other reasons. The Swedish National Audit Office recommends changes to the support system that would increase its cost-effectiveness.

### *The decisions do not lead to cost-effectiveness*

The Swedish Environmental Protection Agency has granted support for measures based on whether the so-called climate benefit ratio is above a certain pre-determined breakpoint. A wide variety of measures are thus compared to each other based on the amount of emission reductions they are expected to generate per invested Swedish krona. Charging stations and transport measures have been afforded a lower breakpoint because these, in addition to emission reduction, are also considered to contribute to the dissemination of technology.

Apart from the derogations in the scheme, the aid is designed to provide maximum emission reductions per invested krona. However, this assumes that the emission reduction is properly defined, is realised in practice, and would not have occurred about without the aid. However, the Swedish National Audit Office finds that these conditions are not always met.

In addition, there are also several other climate-related economic instruments that interact with Klimatklivet, including the carbon tax and the bonus-malus system. This makes it difficult to compare the Klimatklivet measures with each other.

The fact that the support is granted to a wide range of measures also contributes to companies having an information advantage that makes it difficult for the Swedish Environmental Protection Agency to assess the conditions for a measure when there are no other similar measures with which to compare it.

The overall assessment of the Swedish National Audit Office is therefore that it is difficult to achieve a cost-effective allocation of the aid, given the broad approach and that other instruments interact with the aid. In order to equivalent assessment of the various measures, the Swedish National Audit Office has assessed that investment aid should be limited to established measures and to sectors where other instruments are weak.

#### *The incorrect design of guidance hinders the assessment*

The Swedish Environmental Protection Agency's guidelines for emission calculations are based on life cycle analysis. Such an approach includes emission reductions both in Sweden and in other countries. Yet the goal of Klimatklivet is to achieve the Swedish climate goals that are clearly geographically restricted to Sweden. The climate goals are also defined on the basis of international guidelines, which in turn are based on the carbon content of fuel and are clearly demarcated to Sweden. The guidance for emission calculations in Klimatklivet should therefore be based on the same guidelines that apply to the Swedish climate goals. The Swedish National Audit Office notes that because the system boundaries differ, it is not possible to fairly assess the extent to which Climate Leap contributes to achieving Sweden's climate goals.

#### *Not all estimated emission reductions are realised*

The Swedish National Audit Office notes that the problem of double-counting of emission reductions, which has been highlighted in previous investment aid initiatives, also applies to Climate Leap. The problem arises when there is a need for a chain of measures in order to achieve a reduction in emissions. In practice, this means that some measures receive aid on the wrong basis.

In certain cases, the Swedish Environmental Protection Agency endeavours to adjust for the double-counting of measures in the same emissions chain, but it is the assessment of the Swedish National Audit Office that adjustments should be made more systematically, so as not to overestimate emission reductions resulting from Climate Leap.

There are also other indications that the emission reductions calculated during the application process are not realised in practice. For example, the guidance on how to calculate emissions does not consider the future impact of other policy instruments on emissions. The Swedish National Audit Office therefore assesses that it is important to devise a reference scenario for future emissions on which the guidance can be based.

#### *A new definition of the climate benefit ratio improves the possibility of cost-effectiveness*

It is difficult to identify the socio-economic cost resulting from a measure to reduce emissions. At present, it is assumed to correspond to the investment cost of the measure. This does not always provide a fair picture, because in addition to the reduction itself, certain measures yield

both revenue and operating costs that can be linked to other services generated by the measure. For example, a fast-charging station can contribute to the service of mobility. This service is priced and generates net revenue to the company. For private actors that base their actions on market economic grounds, the Swedish National Audit Office assumes that the socio-economic cost generated by the measure in order to achieve the reduction can be presumed to correspond to the grant component. The other costs of the measure are covered by the surplus that the company calculates that the measure will generate. The Swedish National Audit Office therefore assesses that the aid should be allocated on the basis of the quota of emission reductions per granted krona, rather than per invested krona, as is the current practice.

*Aid for filling and charging stations should be based on the possibility of positively influencing the proliferation of alternative vehicles*

An electric car can only be used optimally if an extensive network of charging stations exists, but charging stations are built only if there are enough electric cars. Therefore, it may be necessary to support filling and charging stations in order to facilitate the proliferation of electric vehicles and biogas vehicles. In Klimatklivet, these measures are primarily assessed on the basis of indirect climate benefits. However, as they are also considered to contribute to market introduction, they have been assessed on the basis of a lower climate benefit ratio. Some fast-charging stations which have a good geographical location have also been credited with double climate benefits. It is the assessment of the Swedish National Audit Office that the need for these stations is not measurable in emission reductions. Rather, the aid should instead be granted on other grounds, such as how they are geographically dispersed.

However, the Swedish National Audit Office notes that there is no reason to support HVO (biodiesel) filling stations based on geographical distribution, as HVO can be distributed via conventional, already established, low-cost filling stations or low-blend fossil diesel.

*Waste heat should not be included in Klimatklivet*

Under the Regulation on Support for Local Climate Investments, aid is not granted to activities that are licenced under the EU's emissions trading system, except where the aid relates to measures involving the increased use of waste heat.

If other instruments or information failures prevent waste heat measures from being implemented, an instrument should be designed so that they do not counteract the efficient use of resources overall. The use of waste heat is primarily a matter of increasing the efficiency of the utilisation of natural resources.

The implementation of a waste heat project may also be affected by the market power of district heating companies when accessing the district heating network. However, the District Heating Act and the Act on Certain Cost-Benefit Analyses in the Field of Energy have

weakened the market power of district heating companies. It is the assessment of the Swedish National Audit Office that it may be more effective to correct any remaining shortcomings in the legislation than it is to support waste heat projects within the context of Klimatklivet.

#### *High marginal cost of emission reduction for certain measures*

According to Swedish EPA statistics, the marginal cost to society for an additional kilo of emission reduction resulting from aid from Klimatklivet ranges from 1 to 4 kronor per kilo of carbon dioxide emissions. However, these calculations do not include double-counting, whether the measure would have been implemented even without aid (i.e., a lack of additionality), nor whether the emission reductions are realised in practice.

For example, when taking into account the whole chain of measures, a lack of additionality and other instruments that affect emissions, the socio-economic marginal cost of the aid may be estimated at 6.6 kronor per kilo of carbon dioxide emissions in the chain of measures 'Biogas production for biogas vehicles', and just over 8.5 kronor for the chain 'Electric car filling stations'. The assessment of the Swedish National Audit Office is that the climate goal could be achieved at a lower marginal cost and that Klimatklivet is unlikely to be part of a cost-effective combination of instruments for achieving the Swedish climate goal for 2030.

#### Has the reporting to the Riksdag been true and fair?

The Swedish National Audit Office has audited the reporting chain from the authorities to the Riksdag. The reporting of the Swedish EPA to the Swedish government is comprehensive, includes both advantages and disadvantages, and follows the guidelines provided in the appropriation direction, but the Swedish Environmental Protection Agency bases its reporting on that authority's statistics on the aid, which do not consider the shortcomings noted in this audit.

The Swedish government has reported to the Riksdag through its budget and spring fiscal policy bills. However, the Swedish National Audit Office finds that the government has chosen to provide a unilaterally positive picture of what the Swedish Environmental Protection Agency has reported. A comprehensive socio-economic assessment of the impact of the aid is also lacking.

## Recommendations

### Recommendations to the Swedish government

- In order to avoid incorrect decisions which risk reducing the impact of any new aid, the Swedish government should ensure enough time frames so that the authorities can develop a functional work process before a complex system similar Klimatklivet is initiated. Work processes and systems developed within the context of Klimatklivet should be put to good use.
- Support for climate investments should only be granted to measures in sectors where other instruments are weak, so that the use of dual instruments can be reduced in accordance with the intentions of the Riksdag.
- Aid should be granted on the basis of market failures which must be remedied. For example, aid for filling and charging stations should not be primarily seen as climate investment aid, but rather as a support for the
- distribution of filling and charging stations in order to build up a network of sites.
- Aid for climate investment should be allocated on the basis of the assessment criterion of the maximum possible reduction of greenhouse gas emissions per granted Swedish krona.
- An evaluation plan should be developed when launching a possible new climate investment aid initiative, in order to ensure that the right data can be gathered from the start.
- Support for climate investments should be simply designed and entail minimal administrative burdens. Only information used in the assessment of measures should be requested.
- Ensure that reporting to the Riksdag, on both Klimatklivet and any future support, is true and fair, and that it also covers the overall socio-economic impact of the initiative.

### Recommendations to the Swedish Environmental Protection Agency

- In order to clarify the need for monitoring, the Swedish Environmental Protection Agency should develop a risk analysis method for Climate Leap includes risks of irregularities and human resources vulnerabilities, among other factors. This should also apply to any future aid initiatives.
- In implementing any new support, the Swedish Environmental Protection Agency should clarify:
  - what information is needed to make decisions, with a view to reducing the need for subsequent supplementary information.
  - how to calculate emission reductions. It is reasonable to base these efforts on a reference scenario developed by the Swedish EPA regarding emissions development, as well as the international guidelines for climate reporting.