To Klimatkommunerna  
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## Klimatkommunernas’ response to the consultation on the implementation of the Clean Vehicles Directive in Sweden

Klimatkommunerna hereby submits this contribution to the consultation of the memorandum *Implementation of amendments to the directive on environmental requirements for the procurement of cars and certain public transport services*. The memorandum proposes constitutional amendments to implement *Directive (EU) 2019/1161 of the European Parliament* and of the Council’s amendment of the *Directive 2009/33 on the promotion of clean and energy-efficient road transport vehicles*.

Klimatkommunerna is an association with 39 municipalities and a region as members: *Borås, Botkyrka, Boxholm, Eskilstuna, Falköping, Finspång, Forshaga, Gothenburg, Helsingborg, Hässleholm, Järfälla, Jönköping, Karlstad, Kristianstad, Lidköping, Linköping, Lomma, Lund, Malmö, Mora, Mölndal, Nynäshamn, Olofström, Region Skåne, Sandviken, Skellefteå, Sollentuna, Stockholm, Säffle, Södertälje, Tyresö, Upplands Väsby, Uppsala, Vellinge, Värmdö, Västerås, Växjö, Åmål, Örebro and Östersund*. The members’ climate work is at the forefront in Sweden and the world, and the overall purpose of Klimatkommunerna is to reduce greenhouse gas emissions through the exchange of experience, advocacy work and the communication of good practices and methodologies. We actively contribute to Sweden's national climate work by highlighting the opportunities, obstacles and driving forces that are important for the results of the work locally.

## **Klimatkommunernas’ response to the referral of this memorandum focuses above all on highlighting the proposal's implications for the future of biogas.** Many of Sweden's municipalities have acted as local hubs for biogas development and made Sweden a world leader in biogas - a development that risks coming to a complete halt and even reversing, if the proposed legislation passes in its current form.

## Summary

Municipalities play an important role in the Nordic biogas model, which has made Sweden a world leader in biogas. They handle waste that can become a substrate for biogas production, they produce biogas and they procure and buy biogas as fuel. Other Nordic countries have begun to follow the example of Swedish municipalities, and the model is spreading rapidly to more countries in and outside Europe.

Biogas, with its unique societal benefits, is an important piece of the puzzle in the transition to a sustainable Sweden and the possibilities of achieving our climate and environmental goals. Biogas is a prerequisite for achieving the national climate goals for the transport sector and has been found to be an important partial solution alongside transport efficiency and electrification. Replacing petrol and diesel with biogas means a great benefit for the climate and the environment and drives necessary investments and environmental improvements in other areas - such as waste, sewage treatment and agriculture - with recycling of plant nutrients, reduced eutrophication and improved biodiversity and soil quality as a result. Quite simply put: A resource-efficient, circular economy.

**Biogas is an engine for local, green growth (especially in rural areas) and an important tool for us to be able to achieve our climate and environmental goals locally and nationally.** Now we need the support of the government and the co-operation parties to be able to continue utilizing the benefits of biogas as a resource for society. The climate municipalities call on the government and the co-operation parties:

* to ensure that Sweden's national eco-car definition continues to include biogas-powered cars.
* to urgently introduce the proposals presented in the Biogas Market Inquiry.
* to work to ensure that EU regulations enable the use of biogas as a fuel.Vi behöver kunna använda biogas som drivmedel om vi ska realisera biogasens samhällsnyttor.

The effect, if the proposals in the memorandum were implemented, would be a gradual phasing out of biogas-powered vehicles, and consequently a phasing out of the possibility to use biogas as a fuel. Several municipalities confirm that the availability of biogas cars on the market is already affected. In the long run, the corresponding effect will be felt even for heavy vehicles, if we do nothing about the development.

With the EU's current calculation methodology (letting carbon dioxide emissions at the exhaust pipe determine what is an environmental vehicle and what is not), we will not be able to continue using biogas as a fuel. Klimatkommunerna and many others emphasize that **the climate impact from a life cycle perspective gives a truer picture of the vehicle's environmental impact than measurements at the exhaust pipe/tailpipe**. It is of the utmost importance that the Swedish government and the co-operating parties stand up for the societal benefits of biogas by pushing for the EU to apply the more technology-neutral well-to-wheels perspective on emissions and take into account the entire life cycle of both fuel and vehicles.

What happened to the Swedish biogas market inquiry? Our calls to the government and the co-operating parties

In May 2018, the Swedish government commissioned a special investigation to map out how the biogas' usefulness as a resource is utilized in the best way and provide proposals for how biogas can be given competitive conditions through long-term stable “game rules”. The inquiry was named the Biogas Market Inquiry. When we now read the Swedish government’s proposal for the implementation of the Clean Vehicles Directive, we are left wondering - what happened to the ambitions in the Biogas Market Inquiry? Could the shortcomings in the memorandum be explained by a lack of knowledge about what the Nordic biogas model means for the municipalities in practice, thus leading the government to underestimate biogas as a fuel? In this consultation response, we choose to present a number of municipalities' work with biogas, in the hope of giving the government a clearer picture of what will be lost if Sweden does not now stand up for biogas as a fuel.

"Long-term game rules" is something that is constantly called for by all actors who are expected to participate in climate change. It is the task of national policy to build these frameworks within which all other actors must operate, with legislation and instruments. **We therefore call on the government and the coalition parties to:**

## continue to include biogas-powered cars in Sweden's national eco-car definition

## work for an urgent change of current EU regulations, so that the climate benefit of biogas is included in the calculation of gas vehicles and transporters climate impact (applies to both EU carbon dioxide standards for vehicles and the taxonomy)

## urgently implement the proposals presented in the Biogas Market Inquiry (SOU 2019: 63)

## fight for the biogas - otherwise we will lose it!

## In the EU directive, the basic idea is to contribute to a greater picture of the environment and energy policy. The directive states that “*users should have the freedom of action to allocate efforts to achieve the minimum objectives in their territory in accordance with their constitutional framework and their transport policy objectives. When allocating, various factors should be considered, such as skill in economic capacity, air quality, population density, characteristics of transport systems, policies for phasing out fossil fuels in the transport sector and reduction of air pollution or other relevant criteria*.” Based on this, **it is reasonable for Sweden to take into account the long-term and strategic work that has been conducted at national, regional and local level in order to be able to take advantage of the many benefits of biogas for society.**

## An inspiring example of how a state can act to “boost” biogas is Norway, where the Storting has recently decided to commission the government to remove remaining obstacles to biogas production, including as biogas vehicles with zero-emission vehicles in all government objectives.

The Nordic biogas model - an engine for local green transition

To succeed in the transition to a society that meets the climate goals, we need to invest in solutions that achieve a lot of benefit and value, with less natural resources. **What is a surplus problem or a waste in a place needs to come to a place or a process where it becomes a valuable resource**.

People's ability to support themselves where they live also needs to be strengthened, if we are to reach long-term sustainability. Settlements, municipalities and regions that can produce more of society's basic functions, such as food, energy and water from low-value inputs such as manure and waste, become richer and have more viable companies. Such a region will also have better resilience to crises of various kinds. One of the best examples of complete solutions is biogas according to the Nordic model, which is based on:

1. takes care of and solves a waste problem with, for example, slaughterhouse waste, food waste or manure
2. produces a renewable fuel with the very best climate performance and
3. produces a renewable plant nutrient that replaces mineral fertilizers and contributes with many good effects in plant cultivation.

Investments in biogas according to the Nordic model also have positive "side effects" such as better water and air quality, reduced climate impact, more jobs with stronger regional economic development and improved energy and food security, to name a few. The model is applicable all over the world and there are Swedish companies that can be involved in delivering important parts of the biogas system.

Biogas *production* presupposes the *use* of biogas

## Many of the benefits of biogas arise in production, **but production requires use and sales**.

## To maintain a viable, domestic production of biogas, the product must be competitive in a market. Historically, the willingness to pay for biogas has existed in the road-borne transport sector, and although today we see an increased interest in other sectors such as shipping and industry, it is precisely in road-borne transport that the willingness to pay for biogas will mainly exist for many years to come. In a 2030 perspective, it is unlikely that it will be possible to sell biogas to a corresponding and expanded extent in other sectors, based on prevailing market conditions.

## There is a need for fuel everywhere in Sweden where there is also a need to digest and convert waste and residual products into biogas. **Fuel consumption is in line with the biogas production pattern - continuous production and use around the clock every day of the year**. In this way, costly storage and transport are also avoided. Biogas also fulfils an important function in a strengthened total defence. In its report *Resistance (Motståndskraft)*, the Defence Committee (Försvarsberedningen) emphasizes that security of supply of fuel and food are critical parts of a strengthened total defence. Having domestic biogas production makes us less dependent on imports of both fuel and plant nutrients - both critical products for increased security of supply of food. It is wise to use public procurement to contribute to increased crisis preparedness and security of supply.

## In many parts of Sweden, society has already made extensive investments in the use of biogas for transport, including in the form of digestion plants and filling stations. Investments are still ongoing, for example in the national financial support programme *Klimatklivet*. Klimatkommunerna believes that the proposal as it appears in the memorandum means that we are destroying this development.

## Ten cities describe the importance of biogas for them

## Stockholm

Biogas has been used as a vehicle fuel in the city of Stockholm for 20 years. The city has an expanded network of filling stations where companies and private individuals can refuel their vehicles. Two treatment plants produce the biogas, which is primarily upgraded to vehicle fuel, but also covers part of the electricity and heating needs. The city recycles sewage sludge and food waste from households, restaurants, commercial kitchens for biogas production. Biogas is mainly delivered by pipeline to bus depots and fuel stations, which sell the gas on to passenger cars and trucks. In the Stockholm area, biogas is also produced at Käppala treatment plant (Lidingö), SRV recycling plant (Södertörn) and at the energy company Eon's plant in Bro.

## Kalmar

With perseverance and courage, Kalmar County has integrated various policy areas into investment in biogas solutions. This has led to an increased interest among private investors who want to be involved in building the biogas system. In the public transport procurement, worth SEK 5 billion, for Kalmar County 2017–2027, Kalmar Länstrafik (KLT) demanded 60 percent biogas. For each new procurement, the requirements have been raised and soon there will be biogas filling stations in all the county's municipalities. In the most recent service traffic procurement (2020), the result was 75 percent biogas, thanks to specially built vehicles and nine new filling stations. New investors, both local and international, have entered the county. The first liquefied gas filling station is already ready and two liquefied biogas plants are underway.

## Kristianstad

Kristianstad municipality has taken a holistic approach to biogas and set goals and measures in a biogas strategy. Biogas production in the municipality started in the 1990s. The biogas plant in Karpalund, which is operated by the municipal energy company C4 Energi, was the first in Sweden to co-digest several substrates. The development began with the challenge of handling large amounts of organic waste from food companies and farms in the area. Over time, the realization came that the waste could be used as a valuable raw material in the process of creating energy. A strength of Kristianstad's biogas work is the number of actors who collaborate: Households, agriculture and the food industry participate as suppliers of raw materials for the biogas plant. Production, distribution and use of the gas takes place in a collaboration between Kristianstad Municipality, the energy company E.ON and the regional public transport company Skånetrafiken. Today, there are three filling stations for biogas in Kristianstad municipality.

## Lidköping

Lidköping Biogas is one of the world's first production plants for liquified biogas. The facility supplies passenger cars and heavy vehicles with renewable fuel. In 2016, the plant was sold to the private company Fordonsgas, but is still an example of pioneering municipal work with biogas.

## Östersund

The municipality of Östersund has been producing biogas for vehicle operation at Göviken's wastewater treatment plant since 2007. The biogas is enough for about 400 vehicles. The municipality of Östersund has 124 gas vehicles in its vehicle fleet. At the end of 2020, the municipality was granted climate investment support of SEK 124.2 million, to establish a new fermentation gas plant at Gräfsåsen outside Östersund. The plans are for the plant to utilize all food waste from Jämtland and Härjedalen municipalities, and other compostable waste, and make biogas that is processed for vehicle operation. The plant will also produce organically certified biofertilizer.

## Örebro

Örebro municipality has a goal that the energy supply within the municipality will be based on renewable energy sources by 2050. An investment in biogas is one of the measures. The municipality has been working with biogas as a fuel since 2004, and as of 2009, all city buses run on biogas. The municipality has two plants that produce vehicle gas with local raw materials. There are two filling stations in the municipality for private vehicles, and two other filling stations for trucks. Production exceeds local use, so a large part of the gas is exported. This is something that the municipality wants to change; they are therefore investing heavily in getting more people to use biogas. Since 2020, the work with biogas has been concentrated in one branch of activity at the technical administration.

## Uppsala

The City of Uppsala was one of the first municipalities to invest in biogas production. The municipality's biogas plant processes approximately 30,000 tonnes of food waste from households and companies each year. The waste comes from Uppsala municipality and the northern Stockholm area. The municipal water company Uppsala Vatten owns and operates a public gas filling station, and the municipality's biogas plant supplies all of Uppsala's city buses with gas every day. The City of Uppsala intends to increase its degree of self-sufficiency in renewable fuels and in procurements there is a strategic prioritization scheme of renewable fuels where biogas, hydrogen and electricity are given priority.

## Eskilstuna

Eskilstuna Biogas AB is a company formed to build and operate a biogas plant for digestion of manure, hay, food waste and other organic residues. The purpose of the biogas plant is to produce biogas in liquid form, so called LBG (Liquefied BioGas), and form a node for the production of fertilizers and thereby contribute to the development of agriculture in northern Sörmland. Estimated production of LBG is 5 - 10 million cubic meters per year.

## Linköping

In Linköping, there has been locally produced and renewable biogas for more than 20 years, and with 12 gas stations in the region, the conditions for refueling without fossil fuels are very good. It started with the cooperation between municipalities and bus traffic on biogas as a fuel, since then the gas stations have become open to the public. Svensk Biogas now has filling stations in Linköping, Norrköping, Mjölby, Motala and Västervik. The technical plants in Linköping invested early in research and development of processes for biogas production and have been important in building up Sweden's expertise in the area.

## Lund

In full operation, the biogas plant at Källby in the city of Lund produces about 7 GWh of biogas per year - energy that is enough for about 1,000 gas-powered cars with an average annual mileage of one thousand miles per year. The biogas contributes to reducing carbon dioxide emissions by just over 1,700 tonnes per year in Lund. The municipality and the local energy company Kraftringen are now collaborating to offer piped biogas in central Lund, so that residents and companies that live and work in the area have access to biogas via fixed installations, instead of LPG. Biogas can extend the season by several months on the outdoor terrace and create inviting environments with fires and flame decorations.

With tailpipe measurements, the climate benefit of biogas vehicles is missed

In emission calculations of various fuels, we must start applying well-to-wheels perspectives as soon as possible. This - and to continue to include biogas cars in the environmental car definition - is absolutely necessary for us to be able to take advantage of biogas' unique societal benefits. Measuring according to tailpipe makes electric vehicles appear to be the perfect solution, but we know that there is an environmental impact, both through the electricity used and from the manufacture of batteries and more.

The EU's own research encourages a well-to-wheels perspective (life cycle perspective) on climate emissions. The European Commission's Joint Research Center (JRC) has recently published a study that will provide transparent, evidence-based and objective data for future EU decision-making. The study compares arguments that the climate effect of different fuels and vehicles can only be assessed by looking at the entire chain from source to wheels (well-to-wheels). Among the conclusions is that biogas in gas vehicles performs at the top in terms of climate performance - at the same level as renewable electricity in battery vehicles.

In 2019, the EU expressed in several directives / regulations an ambition to take into account carbon dioxide emissions from vehicles throughout the life cycle and from source to wheels in future reviews and revisions. Here are some examples of how it has been formulated in the regulations:

* Directive on clean and energy efficient vehicles, Directive (EU) 2019/1161: "In its review, the Commission should also consider, inter alia, the feasibility of adapting this Directive to a possible method of calculating CO2 emissions throughout the life cycle and source-to-wheel CO2 emissions developed in the framework of EU vehicle CO2 emission standards […]."
* CO2 standards for new heavy vehicles, Regulation (EU) 2019/1242: "The Commission shall, by 31 December 2022, submit to the European Parliament and to the Council a report […]. The report referred to in paragraph 1 of this Article shall also include, in particular: […] to include the potential contribution to CO2 emission reductions from the use of synthetic and advanced alternative liquid and gaseous renewable fuels […] "
* CO2 standards for new passenger cars and for new light commercial vehicles, Regulation (EU) 2019/631: into the Union market. The Commission shall forward this evaluation to the European Parliament and to the Council, including, where appropriate, proposals for follow-up measures, such as legislative proposals. "
* EU: s nya taxonomi, Taxonomy Report: Technical Annex: "Life-cycle and well-to-wheel considerations for thresholds is pending on the feasibility to develop and agree a common Union methodology."

Keep biogas vehicles in the eco-car definition

## Biogas cars perform very well when it comes to reducing climate emissions, and Klimatkommunerna emphasizes that it is of the utmost importance that biogas-powered cars can remain in the Swedish national eco-car definition. We are in favour of the proposed change on this point in the memorandum - and also note that the authors of the memorandum themselves state that the eco-car definition does not need to be changed to meet the requirements of the directive.

## The Swedish eco-car definition, which was launched in 2020, is intended for state authorities, but is frequently used as a benchmark by municipalities, regions and private companies in their procurements. The process of developing the eco-car definition was carried out with full knowledge that there would be EU requirements for "clean vehicles" with the amendment of the Clean Vehicles Directive. The coming requirements were an obvious part of the analysis of the proposal for a new definition and the consultation responses referred to compatibility with these requirements.

## The memorandum lacks an impact assessment of the effects on the Swedish biogas market of a changed definition of eco-cars, while at the same time stating that a large proportion of the public actors' procured cars are currently biogas vehicles. It is also presented that there are no additional costs of the proposals for municipalities and regions. Making decisions that directly harm the Swedish biogas market can, however, have major financial consequences for the tax community and the opportunity to achieve a wide range of goals in the environment, climate, and society. If biogas-powered vehicles were to be excluded from the national eco-car definition, the most likely consequence would be less interest in procuring biogas-powered cars, and lower demand for biogas as a fuel. The signal value would give rise to waves in the private market and companies and private individuals would be reluctant to acquire a biogas car. That is - an effective way to kill the biogas market – and a strange move almost two years after the Biogas Market Inquiry.

## Other comments to the proposal

EU directives set targets for the proportion of vehicles that an authority acquires that should be "zero emitters". For Sweden, we believe that the share of 38.5 percent for passenger cars is set low. It will not be a problem for Swedish municipalities to achieve this, provided that the biogas is included here. If the percentages proposed in the proposal are to apply, we recommend that a different emission limit be set for the vehicles included in the remaining 61.5 percent.

With regard to emissions from vehicle types other than passenger cars, the requirements are low. Here they should rather have higher requirements for heavy transport and special vehicles. We can only hope that we in Sweden can continue with our transition to these vehicles without being hindered by the EU's lower requirements. It would be good if so-called M1 - wheelchair-accessible vehicles were also included in the directive. Today, it is difficult to make demands on these vehicles because there are no available fossil-free models on the market. If M1 vehicles were also required, it would send a clear signal to vehicle manufacturers about the importance of including these vehicles in their production.

The memorandum also states that special requirements must be set for clean heavy buses, so that they achieve a certain proportion of so-called emission-free buses (electric and hydrogen-powered buses). This sends a signal that may make it more difficult for biogas-powered heavy buses to take their (necessary) part of the conversion work towards a fossil-free vehicle fleet. The large investments made in biogas infrastructure and biogas vehicles, not least heavy buses, therefore risk being lost at least in part - investments made both in the public sector and in the private sector.

Several parts of the memorandum should be clarified to avoid misunderstandings:

* Which procurements are covered? It is not entirely clear which procurements are covered by the implementation of the new law change. The minimum quotas shall be calculated on the basis of agreements awarded from 1 January 2022 and in relation to the total number of vehicles in the agreements concerned. The quotas are different for the different vehicle categories but do not differentiate between different agreements. There are ambiguities regarding the handling of framework agreements and calls for framework agreements, as well as the handling of the period 2 August - 31 December 2021 and whether it should be counted or not.
* How should the shares be calculated? Several of the procurements of vehicles and transport services covered by the implementation of the EU directive may contain a relatively high proportion of vehicles that are exempt from the requirements. For example, wheelchair-accessible vehicles in medical travel, transport services and school transport. The question that thus arises is whether the total number of vehicles on which the proportion of clean vehicles is to be calculated is: the total number of vehicles covered by the requirements of the Directive or the total number of vehicles in general in the current procurements? In the transport-intensive procurements carried out by, for example, the taxi sector, which has many different customers, the question also arises as to whether it is the total number of vehicles that are used in some way in the implementation of the service, or should a conversion to some form of "full-time vehicle" correspond to the service?
* How should the statistics be collected? In view of the short notice regarding the implementation of the Directive - is it reasonable to establish regulations and clear structures for the collection and reporting of statistics that are already in place on 1 January 2022? What happens if such regulations and reporting systems are missing at the turn of the year? It is also unreasonable to assume that the new reporting burden for public actors will not entail any additional costs for the public sector.