

Thank you for giving SEKAB the opportunity to participate in the consultation process.

ABOUT SEKAB

In Domsjö near Örnsköldsvik, in the midst of the northern forests, lies the cradle of the Swedish chemical industry. This is where SEKAB has its roots. The first drops of cellulose based ethanol were produced in this area as early as in 1909 and it is with over one hundred years of combined experience we now move on to the next generation of sustainable bioethanol and innovative solutions in green chemistry.

Our society is facing an enormous challenge where old sources of energy must be replaced by renewable ones. SEKAB is one of Europe's leading ethanol players and we want to contribute to a future where the demand for fossil fuels and raw material is reduced. We do this by producing and importing ethanol which we refine to both biofuels and green chemicals.

Ethanol for biofuel and green chemicals

The ethanol we produce and import is used in our various fuels and is also refined into green chemistry products that end up as products that we use in our everyday lives. Windscreen washer fluid, vinegar, water-based paints, pharmaceuticals, perfumes, cleaning products, varnishes and inks are some examples of the end-results of our green chemistry. All these products which are usually made from oil can with great benefit to the climate instead be produced from renewable ethanol.

Our biofuel ED95 is an ethanol based fuel for adapted diesel engines. It consists of 95 percent pure ethanol. ED95 provides both good energy effect and reduces climate change. SEKAB and Sweden has more than 25 years experience of this fuel in diesel engines.

SEKAB has since the beginning been the main force behind the development of the **E85 market** in Sweden. No other country in Europe has conducted such large and consistent efforts to make biofuels available to everyone.

Unique technology for production of cellulosic ethanol

In the Biorefinery Demo Plant in Örnsköldsvik we have developed commercial technologies to produce cellulosic ethanol from many kinds of raw materials, including wood chips, straw and sugarcane bagasse.

SEKAB's technology is ranked among the top five globally. At the moment we are involved in several feasibility studies with companies from around the world who with our help are examining the potential of various types of by-products rich in cellulose.

Strength in numbers

Our major strength is our home ground development area of Domsjö. Domsjö's advanced biorefinery is to be found here and it is also known as the Biorefinery of

the Future. In this environment we and other companies in the process industry interact with the university and the community in the Umeå and Örnsköldsvik region to take advantage of our northern forestry resources in the best way. Together we want to make more from our trees.

We would like to participate in the consultation process by answering two of the questions no 6 and 7 which was raised in the documentation and is within our competence area.

We invite responses to the questions posed in the Consultative Communication:

1. How can the 2015 Agreement be designed to ensure that countries can pursue sustainable economic development while encouraging them to do their equitable and fair share in reducing global GHG emissions so that global emissions are put on a pathway that allows us to meet the below 2°C objective? How can we avoid a repeat of the current situation where there is a gap between voluntary pledges and the reductions that are required to keep global temperature increase below 2° C?
2. How can the 2015 Agreement best ensure the contribution of all major economies and sectors and minimise the potential risk of carbon leakage between highly competitive economies?
3. How can the 2015 Agreement most effectively encourage the mainstreaming of climate change in all relevant policy areas? How can it encourage complementary processes and initiatives, including those carried out by non-state actors?
4. What criteria and principles should guide the determination of an equitable distribution of mitigation commitments of Parties to the 2015 Agreement along a spectrum of commitments that reflect national circumstances, are widely perceived as equitable and fair and that are collectively sufficient avoiding any shortfall in ambition? How can the 2015 Agreement capture particular opportunities with respect to specific sectors?
5. What should be the role of the 2015 Agreement in addressing the adaptation challenge and how should this build on ongoing work under the Convention? How can the 2015 Agreement further incentivise the mainstreaming of adaptation into all relevant policy areas?
6. What should be the future role of the Convention and specifically the 2015 Agreement in the decade up to 2030 with respect to finance, market-based mechanisms and technology? How can existing experience be built upon and frameworks further improved?

The goals for renewable in the transport sector should be increased after 2020 year by year to 2030 like in US. The experiences in new biofuels technology from the flagship projects that are now under way, should be spread to development countries as a part of the aid to these countries. The Advanced Biofuels group in AEBIOM - European Biomass Association, made a summary of announced project whereof only a few is so far. The main reason for the delay is due to finance reasons. This must be solved with increased governmental guarantees during the depreciation time. With a cap on grain, sugar and biooil based fuels, the need for advanced biofuels will be unrealistic large, compared to planned projects. Very strong incentive is needed until 2030 to

reach the volumes needed to phase out fossil fuels. International cooperation is essential to reach this goal and all solutions that reduce CO₂ emissions should be included.

[Mtoe]	nREAP targets - taking into account the proposed 5% cap on crop-based biofuels (COM(2012)595)	EU-27 consumption in 2011 (Eurostat, EurObserv'ER)	Av co 20 pl pr ca (A ca
Total renewable energy in transport (10%)	32,7		
Crop-based biofuels (5%)	16,4	13,2	
Hydrogen	0,0		
Other	0,7		
Renewable electricity	3,1	1,5	
Non crop-based biofuels	12,5	0 ?	3, m

There should also be goals for bio based chemicals and materials as well. To start with 5 % of the chemicals in January 2015, can be based on renewable feedstock

7. How could the 2015 Agreement further improve transparency and accountability of countries internationally? To what extent will an accounting system have to be standardised globally? How should countries be held accountable when they fail to meet their commitments?

It is essential that the responsible in each MS to fulfill the goal, is held responsible for the shortfall to reach the goal. Some kind of fee, like in Poland, should be addressed from the MS to the actors on the market. It is important that the climate reduction is real and not just calculation to get the credibility from the citizens. Good performing fuels or chemicals should be preferred and given a bonus. There should be a EU trade system, like green certificate between the MS to fulfill the EU goals so countries like Sweden that has high amount of biomass compared to the population, use the possibilities.

8. How could the UN climate negotiating process be improved to better support reaching an inclusive, ambitious, effective and fair 2015 Agreement and ensuring its implementation?
9. How can the EU best invest in and support processes and initiatives outside the Convention to pave the way for an ambitious and effective 2015 agreement?

See above