



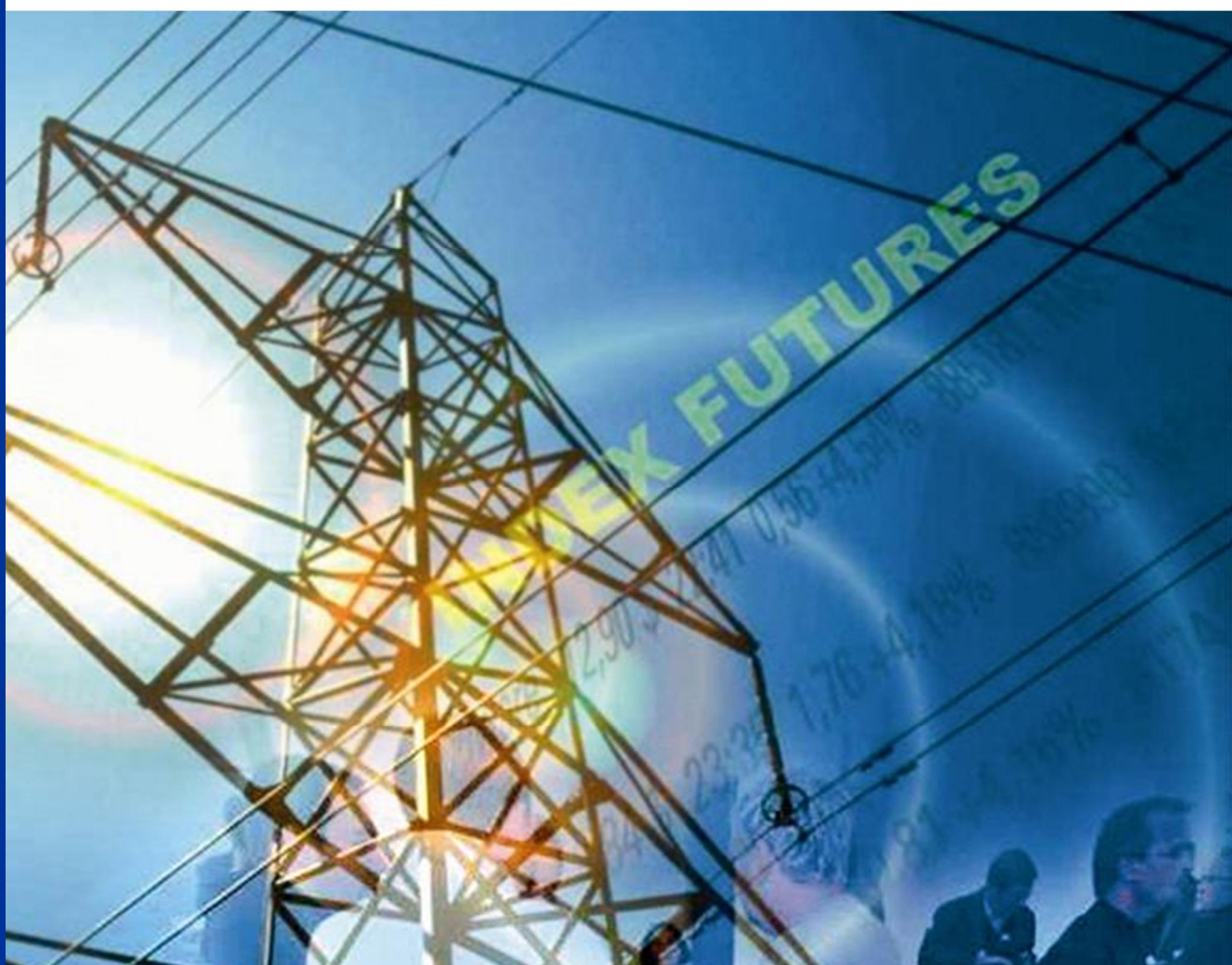
# ASSESSMENT OF THE ALLOWANCE SUPPLY ADJUSTMENT MECHANISM

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A report to Fortum

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## EXECUTIVE SUMMARY

### Overview

The allowance supply adjustment mechanism (ASAM) is among alternative solutions proposed for structural reform of the EU ETS. The option is designed to introduce flexibility into the market for allowances by enhancing the elasticity of allowance supply over the short term, while leaving the overall long term drivers in place. The mechanism aims to maintain an allowance surplus within an 'optimal' band of the following years' cap (proposed as 40-50%). In years where there is excess surplus outside the 'optimal' band, allowances are withheld from auction and placed in a reserve; and in years of shortfall (i.e. surplus below the 'optimal' band), reserved allowances are released (provided that the reserve is sufficient), thereby not altering the overall level of the long term cap. There are also proposed alterations to the mechanism for determining free allocations to industry.

We have conducted a critical review of the mechanism including a limited quantitative assessment. For the quantitative analysis we have developed a number scenarios specifically designed to test the elements of the mechanism itself and also how it responds to different economic and policy landscapes. The analysis has been performed using Pöyry's Carbon Model. The critical review has taken into account the requirements of a reformed EU ETS and we have conducted this with three overarching themes in mind: efficiency, credibility and practicality.

### Evaluation

The results from our assessment indicate that the proposal does have some strengths. These include:

- It is a non-discretionary, rules based mechanism for supply intervention. In some cases, the supply side flexibility it introduces can help ameliorate price rises as well as smoothing out the effect of surpluses of allowances.
- The mechanism would also make use of existing institutions and on first inspection should not be complex or expensive to implement.

### Limitations

However, several limitations were also identified; notably the concept of an optimal surplus band and the timing of supply intervention. Our modelling suggests the 'optimal' surplus<sup>1</sup> would, without the ASAM amendment, be chosen by the market based on the shape of the supply and demand curves over the following years. Left to its own devices, the market would manage the degree of surplus in order to minimise abatement costs in the coming years, adjusting for costs (and risks) of holding allowances against future needs (termed the 'cost of carry'). Consequently, a mechanism which tries to override this natural market balance and deliver a pre-determined surplus level does not necessarily make efficient interventions, and this can lead to volatile prices. This effect is compounded by the time lag before any supply intervention takes place. Any decision to withhold or increase supply is based on data from the emissions verification process, which is only known once a year. Consequently, there will always be a delay between the time when the change in the surplus actually takes place and the time of the supply intervention.

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<sup>1</sup> There is an inherent need for a surplus of allowances at any time, to allow producers to hedge against their future production commitments.

In reality, if a mechanism such as the ASAM were implemented, it is likely that market participants would modify their behaviour to anticipate the effects of the mechanism. Changes to market behaviour, which counter the effects of the measure, may help to reduce the levels volatility that are seen in our modelled results<sup>2</sup>. However, they may also have some unpredictable, second order impacts.

In order to improve the mechanism, the surplus band level may have to be reviewed and reset regularly. This requirement may be compounded by expected changes to the structure of the market in the future, notably the continued transition to auctioning of allowances. Whilst there is provision in the proposal for this review process to take place, it is likely that this requirement for review could undermine the credibility of the scheme in the long run. As a result, the ETS under the ASAM could still be subject to political intervention, and therefore could fail to provide the level of certainty that is required by potential investors in capital intensive, low carbon technology.

### **Potential enhancements**

Several suggestions are made, both to the mechanism itself and to the accompanying policies, as to how the ASAM's implementation could be improved.

In terms of the mechanism, one option would be to start with a low surplus band to quickly restore price tension to the market and load the reserve with allowances, and then to shift to a higher surplus band in later years to allow sufficient allowances to be released from the reserve to ameliorate price rises as much as possible. An alternative strategy could be to change the basis of the optimal surplus band to be the function of a pre-defined calculation that takes into account a number of variables, such as economic growth and the impact of other energy policies. This would allow the band level to respond to a number of factors over time to try to ensure it is at the right level and therefore make the correct supply intervention. To succeed, the objectives of the future reviews would somehow need to be predefined and the degree for short term political intervention should be contained.

In terms of the accompanying policies, our modelling suggests that backloading and the ASAM do not work well together. This is due to the timing of the supply interventions, which are not aligned between these two mechanisms. In contrast to this, we have found no major additional challenges associated with combining the ASAM with tighter CO<sub>2</sub> targets or higher RES subsidies. With the tighter CO<sub>2</sub> targets scenario, the ASAM may work best with a lower surplus band in the early years to quickly restore price tension, and a higher band in the later years so that allowances from the reserve are released in sufficient quantities to help ameliorate price rises.

### **Uncertainties**

We note that the scheme also proposes to alter the basis for free allocations. This aspect of the scheme has not been fully explored, and we register the concerns that these issues have proved to be highly contentious in the past and so this could potentially bring opposition to the scheme; and also that the incentives on industry under the proposed

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<sup>2</sup> We note that we model the market on an annual basis therefore do not capture the ability to borrow some allowances from the future year. This is largely a function of the timing of the submission of allowances during the compliance process (in April for the previous year) which allows participants to use some allowances from the current year to cover their emissions from the previous year.

allocation scheme would be rather different to the existing allocation methodology. This area merits further attention.

### **Conclusion**

Finally, we observe that the existing balance between short term and long term is distorted because of the widespread concern that the EU ETS in its current form is failing, and that some alternative to the EU ETS may be found. The consequent risk that future allowances will not have a value is inflating the 'cost of carry' and limiting the extent to which a future shortage of allowances influences today's prices. As a consequence, the introduction of **any** credible mechanism which promises to deliver a long-term solution within the existing EU ETS framework may restore the necessary balance between current and future prices. Therefore, if it were adopted with widespread approval, then the ASAM scheme could succeed despite its limitations.