## **EUROPEAN COMMISSION**



Brussels, 14.12.2015 C(2015) 9344 final

## PUBLIC VERSION

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**Subject:** State aid SA.43301 (2015/N) – Sweden

Tax exemptions and tax reductions for liquid biofuels

Madam,

## 1. PROCEDURE

- (1) On 12 October 2015, Sweden notified the above-mentioned aid scheme, pursuant to Article 108(3) of the Treaty on the Functioning of the European Union (TFEU), following previous exchanges with the Commission.
- (2) The notified measure is a prolongation of an existing scheme which was repeatedly approved by the Commission as compatible aid. The latest approval decision in case SA.38421 (2014/NN)<sup>1</sup> was based on the Guidelines on State aid for environmental protection<sup>2</sup>.

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SA.38421 (2014/NN) – Sweden – Prolongation of the Swedish energy taxation of biofuels for blending (OJ C 63, 20.02.2015, p. 5).

<sup>&</sup>lt;sup>2</sup> OJ C 82, 1.4.2008, p. 1.

## 2. DETAILED DESCRIPTION OF THE AID

## 2.1. Legal basis, form of aid and objective

- (3) The legal basis of the aid is the Swedish Act (1994:1776) on Excise duties on Energy. The Swedish excise duty consists of two parts, namely an energy tax and a carbon dioxide (CO<sub>2</sub>) tax.
- (4) The aid is for biofuels that fulfil the EU sustainability criteria as defined in Article 17(2) of the Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC<sup>3</sup>. It is granted in the form of exemptions and reductions in the energy and CO<sub>2</sub> taxes.
- (5) The primary objective of the scheme is environmental protection through the increased use of sustainable liquid biofuels. As the use of fossil fuels generates higher levels of greenhouse gas emissions, replacing fossil fuels with sustainable biofuels will have the effect of reducing these emissions. The scheme should also help Sweden to meet the EU target of a 10 % share of renewable energy in the transport sector as well as to reach the general target of 49 % set by the Directive 2009/98/EC.
- (6) All eligible biofuels will be given a full exemption from the CO<sub>2</sub> tax. Moreover, as from 1 January 2016, the exemptions or reductions from energy tax will be as follows:
  - a 74 % energy tax reduction for ethanol for low-blending;
  - a 100 % energy tax exemption for biofuels for low-blending other than ethanol;
  - a 8 % energy tax reduction for fatty acid methyl-ester (FAME) for lowblending;
  - a 100 % energy tax exemption for biofuels for low-blending other than FAME;
  - a 50 % energy tax reduction for FAME for high-blending;
  - a 73 % energy tax reduction for ethanol (E85) for high-blending;
  - a 100 % energy tax exemption for liquid biofuels for high-blending other than ethanol or FAME;
  - a 100 % energy tax exemption for hydrogenated vegetable and animal oils and fats, known as HVO.
- (7) Unsustainable biofuels are taxed at the rate of the equivalent fossil fuels.

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OJ L 140, 5.6.2009, p. 16.

- (8) Both the CO<sub>2</sub> tax exemptions and the energy tax exemptions and reductions described in recital (6) are hereinafter referred to as the "tax reductions". For the time being, some of the energy tax reductions are hypothetical, as the relevant biofuels are not yet present on the Swedish market. Currently, only ethanol for low- and high-blending (including Ethyl Tertiary Butyl Ether ETBE), FAME for low- and high-blending, HVO and biogas<sup>4</sup> are available on the Swedish market.
- (9) The tax reductions are granted to compensate for the difference between the (higher) costs of producing sustainable biofuels and the market price of the equivalent fossil fuels. Average costs for producing biofuels are given in Annex I.

## 2.2. Beneficiaries and tax payers

- (10) The scheme indirectly benefits producers of sustainable biofuels for blending. It applies to biofuels produced in Sweden and to imported biofuels.
- (11) The tax reductions have to be claimed by the fuel suppliers who purchase the eligible biofuels and make the tax declarations (the "tax payers"). In order to receive the tax reductions, the tax payers must verify that the biofuels in question fulfil the EU sustainability criteria for biofuels.
- (12) In addition, Sweden will introduce new rules as of 1 January 2016 for food-based biofuels, which are defined in the draft legislation as "biofuels produced from cereal and other starch rich crops, sugars and oil crops".
- (13) The tax payers will have to show that the food-based biofuels are produced in plants that started operation before 31 December 2013 and that are not fully depreciated. For this purpose, the tax payers will be required to have a verification system in place to certify the origin of the food-based biofuels. The verification system may include appropriate routines, for example by requiring an auditor's report for the plant where the biofuels were produced.
- (14) The Swedish Energy Agency (SEA), which already monitors compliance with the EU sustainability criteria, will also have a supervisory role relating to the rules on food-based biofuels: It will review the routines and issue the approval document to confirm that they are adequate. If the conditions for the approval document are no longer met, they SEA shall revoke the approval document. Tax payers will need the approval document to demonstrate compliance when claiming the tax reductions.

# 2.3. Aid level and monitoring of overcompensation

(15) As the scheme has already been in place in the past, it has been subject to regular monitoring by the Swedish authorities.

(16) Sweden initiated an increase of the energy tax on ethanol both for low- and for high-blending as of 1 December 2015. The level of the energy tax increase is based on initial forecasts for 2016 in order to avoid that the aid level exceeds the

Biogas is not covered by this decision, but by the decision on State aid case SA.43302 (2015/N) – Sweden – Tax exemptions for biogas used as motor fuel.

- difference between the biofuels' production costs and the market price of the equivalent fossil fuels (overcompensation).
- (17) Finally, the budget bill for 2016 will adapt the energy tax rates for fossil fuels and, as a consequence, also adapt the energy tax reductions for sustainable liquid biofuels. The bill is due to come into force on 1 January 2016. The changes that will come into effect on 1 January 2016 are reflected in the tax reductions described in recital (6) and in Table 1. These changes will ensure that the tax advantage will not exceed the difference between the production costs of the concerned biofuels and the market price of the equivalent fossil fuels.
- (18) The values shown in Table 1 have been adjusted for the energy content of fossil fuels.

Table 1: Forecast on the difference between biofuel production costs and fossil fuel market prices in 2016 (SEK per litre, with EUR per litre given in brackets; "low" and "high" indicate blending quality)<sup>5</sup>

	FA	ME	Etha	anol	HVO	ED95
	Low	High	Low	High		
Difference between	0.49	0.25	0.36	0.27	0.35	> 0
biofuel production costs and fossil fuel market price in 2016, considering taxes as from 1 January 2016 and price forecasts	(0.06)	(0.03)	(0.04)	(0.03)	(0.04)	

(19) In addition, the scenario in Table 1 also takes into account the forecast future price of crude oil and raw materials. Table 2 provides the views of a number of different international institutions on what they consider will happen to the oil price in 2015 and 2016. The SEA shares the estimate that the Brent Crude Oil price will remain low during 2015 and 2016. In 2015, the Agency expects that the crude oil price will be about 54 % of the price in 2014 and in 2016 around 63 % of the oil price in 2014.

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All figures are based on an exchange rate of SEK 9.3754 per EUR (OJ C 324, 2.10.2015, p. 5).

Table 2: Expected price of Brent Crude Oil (USD/barrel; source: SEA)

Bank/Institution	Date of publication	2015	2016
Goldman Sachs	2015-01-12	50.4	70
ABN AMRO	2015-01-12	60	75
Standard & Poor's	2015-01-12	55	65
Societe Generale	2015-01-09	55	65
Deutsche Bank	2015-01-09	59.4	70
BNP Paribas	2015-01-08	60	75
UBS	2015-01-05	69.75	80
Citi Research	2015-01-04	63	70
Credit Suisse	2014-12-02	75.25	80

- (20) Moreover, Sweden has explained that the average margin reported by Swedish biofuel producers (when expressed as the difference between sales and total costs, divided by total costs) did not exceed 5 %.
- (21) Sweden has renewed its commitment to submit annual monitoring reports to the Commission and to adapt the aid levels if necessary in order to avoid any overcompensation in the future. The monitoring reports are based on detailed information collected by the SEA from the tax payers, both in respect of domestically produced and of imported biofuels.

# 2.4. Budget and duration

(22) The prolonged scheme will enter into force on 1 January 2016 and be in force until 31 December 2018, with a total budget of approximately SEK 19 billion (EUR 2.03 billion).

#### 2.5. Other elements

- (23) Sweden does not apply a quota system, blending obligation or any other system with similar effects for liquid biofuels, and has indicated that it does not intend to apply any such measure for the duration of the notified aid scheme.
- (24) Sweden has committed to comply with the transparency provisions of the Guidelines on State aid for environmental protection and energy 2014-2020<sup>6</sup> (EEAG).

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<sup>&</sup>lt;sup>6</sup> OJ C 200, 28.6.2014, p. 1.

#### 3. ASSESSMENT

#### 3.1. Existence of aid

(25) As the Commission held in its previous decisions, the scheme constitutes State aid within the meaning of Article 107(1) TFEU. Indeed, the tax reductions reduce the State's tax income and are therefore financed through State resources. They also selectively benefit biofuel production. Since biofuels serve as a substitute for fossil fuels, the tax reductions may distort competition among fuel producers and fuel suppliers. As fuels are traded internationally, the measure is also likely to affect trade between Member States.

#### 3.2. Lawfulness of aid

(26) Sweden has fulfilled its obligations according to Article 108(3) TFEU by notifying the scheme before putting it into effect.

# 3.3. Compatibility

- (27) The Commission has assessed the compatibility of the aid scheme according to Article 107(3)(c) in the light of the EEAG, in particular Sections 3.2 and 3.3.
- (28) In compliance with Section 2.3 of the Community Guidelines for State aid in the agricultural and forestry sectors in rural areas 2014-20207, aid for the production of biofuels is to be assessed on the basis of the EEAG.

## 3.3.1. Objective of common interest

- (29) The measure's primary objective is environmental protection through increased use of sustainable biofuels. Promoting the use of sustainable biofuels should contribute to meeting the targets mentioned in recital (5). Sweden has confirmed that the scheme only supports biofuels that meet the EU sustainability criteria.
- (30) The measure therefore supports an objective of common interest.

# 3.3.2. Need for State intervention

- (31) According to point (36) of the EEAG, aid is needed if the Member State demonstrates that the aid effectively targets a (residual) market failure which is not addressed by other policy measures. As far as the deployment of renewable energy is concerned, it is presumed in point (115) of the EEAG that a residual market failure remains, which can be addressed through the granting of aid for renewable energy.
- (32) Indeed, without State intervention, the biofuels for blending would have the same tax rates as fossil fuels. Due to the higher costs of producing and using biofuels, they would not be sold. Hence, there would be insufficient incentive to produce these fuels in the quantities needed. Aid is therefore necessary.
- (33) More specifically, Sweden has confirmed that the biofuels supported by the notified tax scheme would not be subject to a quota system, blending obligations

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<sup>&</sup>lt;sup>7</sup> OJ C 204, 01.07.2014, p. 1.

or other systems with the similar effect during the aid period (until the end of 2018). Point (114) of the EEAG is therefore complied with.

## 3.3.3. Incentive effect

(34) The incentive effect is present if the aid changes the beneficiary's behaviour towards reaching the objective of common interest. This is the case in particular where the costs for producing renewable energy exceed the market price and the aid can help reduce these environmental extra costs. As shown in Annex I, the costs for producing biofuels are higher than the market price of the equivalent fossil fuel. The tax reductions contribute to reducing these extra costs. Since the tax reductions will encourage the use of biofuels, they will also incentivise the production of biofuels. The aid will therefore have an incentive effect.

# 3.3.4. Specific provisions on food-based biofuels

- (35) According to point (113) of the EEAG, operating aid to food-based biofuels can be granted until 2020, but only to plants that started operation before 31 December 2013 and only until the plant is fully depreciated. Food-based biofuels are biofuels that are produced from cereal and other starch rich crops, sugars and oil crops<sup>8</sup>.
- (36) Currently, in order for biofuels to benefit from the tax reductions, the tax payers are required to verify that the biofuels fulfil the EU sustainability criteria. As of 1 January 2016, Sweden will introduce an additional requirement: Tax payers will also need to show that the biofuels are not food-based or, if failing this, that they were produced in plants that started operation before 31 December 2013 and that are not fully depreciated.
- (37) To demonstrate compliance, a tax payer will need to have a verification system in place to ensure that the biofuels for which the tax reductions are claimed meet the conditions mentioned above. For that purpose, the supplier will need to obtain an approval document from the SEA that the verification system set up by the supplier satisfies the legal requirements.
- (38) Accordingly, the requirement in point (113) of the EEAG is fulfilled.

# 3.3.5. Appropriateness

(39) In accordance with point (116) of the EEAG, the Commission considers that the tax reductions are an appropriate instrument to fulfil the objective of common interest identified above. Indeed, the tax reductions encourage the use of sustainable biofuels for blending and thereby foster their production.

Article 2, point 113 of Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty, OJ L 187, 26.6.2014, p. 1.

## 3.3.6. Proportionality

- (40) According to point (131) of the EEAG, operating aid for renewable energy production also needs to meet the following cumulative conditions:
  - (a) The aid per unit of energy does not exceed the difference between the total levelised costs of producing energy (LCOE) from the particular technology in question and the market price of the form of energy concerned (no overcompensation).
  - (b) The LCOE may include a normal return on capital. Investment aid is deducted from the total investment amount in calculating the LCOE.
  - (c) The production costs are updated regularly, at least every year.
  - (d) Aid is only granted until the plant has been fully depreciated according to normal accounting rules in order to avoid that operating aid based on LCOE exceeds the depreciation of the investment.
- (41) On the condition in point 131(a) EEAG, Sweden already increased taxation in 2015, in line with a commitment given in the previous case SA.38421 (2014/NN) (see in particular recital (11) of that decision).
- (42) The risk of overcompensation however is also influenced by the prices of crude oil and raw materials needed to produce biofuels. The price of crude oil has fallen since August 2014. The price of raw materials for biofuels remaining constant, a falling crude oil price is expected to entail lower market prices for fossil fuels. That in turn would increase the extra costs of biofuels and thereby reduce the risk of overcompensation. As stated above in recital (19), the SEA expects that the crude oil prices in 2015 and 2016 would be approx. 55 % to 65 % of the price in 2014.
- (43) In addition, Sweden has taken measures and committed to take further measures to remedy any overcompensation. The energy tax has increased on 1 December 2015 for ethanol for low- and high-blending. Further adjustments will be made as of 1 January 2016, which will result in the energy tax rates given in recital (6). As shown in Table 1, these measures will exclude overcompensation in 2016 for all biofuels for blending.
- (44) For the following years, Sweden has confirmed that it will continue to monitor the market for motor fuels and that monitoring reports will be compiled and sent to the Commission regularly, at least once a year. These reports will include updated cost calculations. Sweden has also committed that, in case of overcompensation, the aid levels would be adapted so as to remedy the overcompensation.
- (45) In light of this information and of these commitments, the Commission considers that the aid will not exceed the difference between the production costs (of biofuels) and the market price of the form of energy concerned (the equivalent fossil fuels). The conditions in point 131(a) and (c) EEAG are therefore met.
- (46) As far as the rate of return is concerned, it appears that the margin reported by the Swedish biofuel producers is not excessive: As explained in recital (20), it does not exceed 5 % of total production costs.

- (47) If the biofuel producers have received investment aid, this will be reflected in their production costs, for instance in reduced capital costs. Lower production costs in turn influence the extent to which aid may be granted, given that the overcompensation test is based on a comparison of biofuel production costs and the market price of the equivalent fossil fuel. Therefore, Sweden's method of checking for overcompensation ensures that any investment aid granted is taken into account. The conditions in point 131(b) EEAG are therefore met.
- (48) Aid can normally only be granted until full depreciation of the plant. In principle, as shown in the cost calculations in Annex I, the tax reductions apply in such a way that the aid may also compensate for a biofuel producer's capital costs.
- (49) However, as was explained in recital (13), tax payers that source food-based biofuels will need to have a verification system in place that ensures that no aid is claimed for food-based biofuels coming from depreciated plants.
- (50) As far as non-food-based biofuels are concerned, Sweden has confirmed that no aid would be granted after the plants are fully depreciated according to normal accounting rules. This is because the non-food based biofuels come from modern plants using relatively new technology. Given that the notified scheme will end on 31 December 2018, these plants will not yet be depreciated within the duration of the scheme. The conditions in point 131(d) EEAG is therefore met.
  - 3.3.7. Avoidance of undue negative effects on competition and trade between Member States
- (51) According to point (116) of the EEAG, the Commission presumes the limited effects of the aid provided that all other conditions are met, which is the case here.

## 3.3.8. Transparency

- (52) Member States are required under Section 3.2.7 of the EEAG to publish as of 1 July 2016 certain information related to the beneficiaries of aid.
- (53) Sweden has committed to complying with these provisions. The relevant information will be published on a website as of 1 July 2016.

## 3.3.9. Duration

(54) Pursuant to paragraphs (113) and (121) EEAG, operating aid schemes for foodbased biofuels shall be limited to 2020. The notified measure will last until 31 December 2018.

# 3.3.10. Compliance with Union tax law

(55) As the notified measure concerns excise duty reductions and exemptions for energy products, the Commission also assessed its compliance with Directive 2003/96/EC on restructuring the Community framework for the taxation of energy products and electricity ("the Energy Taxation Directive"). 9

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<sup>&</sup>lt;sup>9</sup> OJ L 283, 31.10.2003, p. 51.

- (56) Article 16(1) of the Energy Taxation Directive allows Member States to apply an exemption or a reduced rate of taxation on biofuels. Article 16(2) limits the exemption or reduction in taxation to the part of the product that actually derives from biomass, which is the case under the notified measure.
- (57) Furthermore, the notified measure also complies with Article 16(3) of the Energy Taxation Directive: Indeed, as was concluded in recitals (43) and (44), the aid will not entail overcompensation of biofuel production in 2016. Moreover, Sweden has committed that, in case of any overcompensation in the future, the aid levels would be adapted so as to remedy the overcompensation.

#### 3.3.11. Conclusion

(58) In light of the above, the Commission considers that the notified measure is compatible with the internal market in accordance with Article 107(3)(c) TFEU.

#### 4. CONCLUSION

The Commission has accordingly decided not to raise objections to the aid on the grounds that it is compatible with the internal market pursuant to Article 107(3)(c) of the Treaty on the Functioning of the European Union.

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Your request should be sent electronically to the following address:

European Commission,
Directorate-General Competition
State Aid Greffe
B-1049 Brussels
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Yours faithfully For the Commission

Margrethe VESTAGER Member of the Commission

# **Annex I: Forecasted biofuel production costs** (reflecting Table 1)

2016	Low-blended	pap	High-blended	led	FAME for	FAME for low blend	FAME for bigb	r bigb	HVO	
	ethanol in	petrol	ethanol in petrol	petrol			blend	)		
	SEK/litre	EUR/litre	SEK/litre	EUR/litre	SEK/litre	EUR/litre	SEK/litre	EUR/litre	SEK/litre	EUR/litre
A) Raw materials	4.92	0.53	4.68	0.50	6.97	0.81	7.17	0.77	60.6	0.97
B) Labour costs	0.05	0.01	0.05	0.01	0.03	0.00	0.08	0.01	0.04	0.00
C) Capital costs	0.0	0.01	0.20	0.02	0.09	0.01	0.10	0.01	0.21	0.02
D) Processing costs	1.64	0.17	1.66	0.18	0.89	0.10	1.20	0.13	0.97	0.10
E) Transport costs	0.07	0.01	0.10	0.01	0.11	0.01	0.32	0.03	0.12	0.01
F) Sales of by-products	0.00	0.00	00.00	0.00	0.00	0.00	-0.02	0.00	0.00	0.00
G) Total production costs	6.77	0.72	69.9	0.71	8.09	0.94	8.85	0.94	10.43	1.11
(A+B+C+D+E-F)										
H) Profit margin										
I) Energy tax	0.97	0.10	1.00	0.11	2.17	0.25	1.18	0.13	0.00	0.00
I) Net total $(G+H+I)$	7.74	0.83	69.7	0.82	10.26	1.19	10.03	1.07	10.43	1.11
K) Price adjusted for energy content	11.95	1.27	11.86	1.26	10.96	1.27	10.72	1.14	10.82	1.15
L) Reference price of fossil fuel	11.59	1.24	11.59	1.24	10.48	1.21	10.48	1.12	10.48	1.12
M) Difference between the reference	0.36	0.04	0.27	0.03	0.49	90.0	0.25	0.03	0.35	0.04
price of fossil fuel and price for										
brofuels (K-L)										

Calculated with the exchange rate 9.3754 SEK/EUR according to the Official Journal 2015/C 324/06