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EFTA SURVEILLANCE AUTHORITY DECISION
OF 11 DECEMBER 2003
ON A PROPOSED AID SCHEME TO UTILISE ENERGY FROM FINAL WASTE
TREATMENT PLANTS

(NORWAY)

THE EFTA SURVEILLANCE AUTHORITY,

HAVING REGARD TO the Agreement on the European Economic Area¹, in particular to Articles 61 to 63 and Protocol 26 thereof,

HAVING REGARD TO the Agreement between the EFTA States on the establishment of a Surveillance Authority and a Court of Justice², in particular to Article 24 thereof and Article 1 (2) in Part I of Protocol 3 thereof,

HAVING REGARD TO the Authority's Guidelines³ on the application and interpretation of Articles 61 and 62 of the EEA Agreement, and in particular Chapter 15 thereof,

WHEREAS:

I. FACTS

1. Procedure

By letter of 29 January 2003 from the Mission of Norway to the European Union, forwarding letters from the Ministry of Trade and Industry and from the Ministry of Environment both dated 24 January 2003, received and registered by the Authority on 31 January 2003 (Doc. No 03-654-A), the Norwegian authorities notified pursuant to

¹ Hereinafter referred to as the EEA Agreement.

² Hereinafter referred to as the Surveillance and Court Agreement.

³ Procedural and Substantive Rules in the Field of State Aid - Guidelines on the application and interpretation of Articles 61 and 62 of the EEA Agreement and Article 1 of Protocol 3 to the Surveillance and Court Agreement, adopted and issued by the EFTA Surveillance Authority on 19 January 1994, published in OJ 1994 L 231, EEA Supplements 3.9.94 No. 32, last amended by the Authority's Decision No 198/03/COL on 5 November 2003, not yet published, hereinafter referred to as the State Aid Guidelines.

Article 1 (3) in Part I of Protocol 3 to the Surveillance and Court Agreement⁴ an aid scheme to utilise energy from final waste treatment plants.

In this letter the Norwegian Government notified the Authority of the intention, as from 1 July 2003, to introduce a new aid scheme aimed at the promotion of energy production from landfills and final waste treatment plants.

By letter of 3 March 2003 (Doc. No 03-682-D) the Authority acknowledged receipt of the notification and requested additional information, in particular information necessary for assessing the scheme under option 1 and 3 on operating aid for renewable energy resources of Chapter 15 of the Authority's Environmental Guidelines.

By letter dated 5 May 2003 from the Mission of Norway to the European Union forwarding letters dated 30 April 2003 from the Ministry of Trade and Industry and the Ministry of the Environment, received and registered by the Authority on 7 May 2003 (Doc. No 03-2862-A), additional information was submitted. Since the Norwegian authorities suggested assessing the scheme under option 3, they did not fully supply the information requested under the part of the Authority's information request which dealt with option 1.

By letter dated 7 July 2003 (Doc. No 03-3716-D), the Authority acknowledged receipt of the additional information and requested further information. On request of the Norwegian authorities, the deadline to respond to this letter was extended by the Authority.

By letter from the Norwegian Mission to the European Union dated 7 October 2003, forwarding letters from the Ministry of Trade and Industry and the Ministry of Environment of 6 October 2003, Norway provided further information. The letter was received and registered by the Authority on 9 October 2003 (Doc. No 03-6911-A). In this letter the Norwegian authorities stated that some of the information and documentation the Authority requested, was not available and that Norway had no further information to give. It also stated, that while there would always be a further possibility of refining the information, the Norwegian authorities had supplied as complete information as possible related to the notification of the proposed aid scheme. Norway thus considered the notification to be complete. The Norwegian authorities indicated, however, as regards the implementation of the proposed aid scheme, which was originally foreseen for 1 July 2003, they would provide further information as requested at a later stage.

By letter from the Norwegian Mission to the European Union dated 21 October 2003, forwarding letters from the Ministry of Trade and Industry and of the Ministry of the Environment both dated 17 October 2003, the Norwegian authorities informed the Authority that the aid scheme would not be implemented before 1 July 2004. This letter was received and registered by the Authority on 22 October 2003 (Doc. No 03-7281-A). The Authority acknowledged receipt by letter dated 31 October 2003 (Doc. No 03-7468-D).

⁴ Article 1 (3) in Protocol 3, before the amendments to Protocol 3 of the Surveillance and Court Agreement, agreed upon by the EFTA States on 10 December 2001, entered into force. The amendments entered into force on 28 August 2003. The former Article 1 (3) is now laid down in Part I of Protocol 3.

By letter dated 19 November 2003 (Doc. No 03-7885-D), the Authority informed the Norwegian Government about its doubts regarding the compatibility of the scheme with Article 61 (3) (c) of the EEA Agreement.

The Norwegian authorities acknowledged receipt of this letter by letter from the Ministry of Trade and Industry dated 8 December 2003 (03-8647-A).

2. Description of the proposed waste-to-energy aid scheme

2.1 Title and objective of the aid scheme

The notification concerns an aid scheme for the utilisation of energy from final waste treatment plants that are required to pay tax on final waste treatment (“*Tilskudd til utnyttelse av energi fra avgiftspliktige sluttbehandlingsanlegg for avfall*”).

The objective of the aid scheme is to increase energy production from waste, thereby achieving Norway’s climate and waste policy goals.

2.2 Background

While the scheme aims at increasing energy production from waste, it also aims at compensating the aid beneficiaries for increased costs for waste incinerations plants, resulting from an intended change in the waste treatment tax.

At the present time, there is a tax on final waste which is paid by landfill operators and waste incineration plants and is levied on the *tonnage of waste* delivered. The tax is differentiated in that tax deductions are available for waste incineration plants which utilise the energy produced by the waste incineration, either for heat or electricity. The Norwegian Government informed the Authority that the differentiated tax will be replaced by a new regime which levies taxes on the *actual emissions of pollutants* from the incineration. The present system of tax deductions was considered an inadequate stimulus to waste based energy production, and it was proposed to adopt a separate aid scheme related to the actual energy produced rather than having reduced rates according to the percentage of energy utilised. The system of tax deductions is thereby abolished, leading to increased costs for waste incineration plants. According to the Norwegian authorities, without state support, waste incineration plants would not be able to compete with other energy producers which do not have to pay a similar tax on the releases of pollutants.

Consequently, the Norwegian authorities propose an aid scheme of direct grants whose potential beneficiaries are those undertakings which are subject to the (amended) tax on final waste treatment.

In order to understand this background, it is appropriate to

- explain the present waste treatment tax (2.2.1),
- present the intended changes in the waste treatment tax about which Norway informed the Authority in the context of the notification of the aid scheme (2.2.2)

before the notified aid scheme is described in 2.3.

2.2.1 The current tax rules on final waste treatment

The current tax on final waste treatment was introduced 1 January 1999 as one of several measures designed to fulfil Norway's obligations under the Kyoto Protocol. The purpose of the tax is to put a price on the emissions resulting from final treatment of waste and to provide an incentive to reduce the amount of waste, to recycle waste and to utilise waste for energy purposes. Norway considers the tax to be an environmental tax.⁵

The tax is paid by waste incineration plants and landfill operators. It is levied on the deposit of waste to landfills and to incineration plants, based on the tonnage of waste delivered. General exemptions from the tax apply for:

- high-risk (hazardous) waste subject to special regulations and delivered to special receiving stations,
- deposits for recycling, reuse or to be sorted out for recycling (not delivered to landfills or incinerations plants),
- deposits of homogenous, inorganic material disposed of in separate storage (not leading to emission of greenhouse gases),
- industrial plants that incinerate processed waste (*avfallsbaserte brensler*) and utilise the energy recovered for industrial production, are deemed as recovery plants and are not covered by the tax,
- residual waste from utilization of recycled fibres in the pulp and paper industry and
- deposits of waste consisting of polluted soil and waste banks.

As stated by the Norwegian authorities, plants covered by the tax and the proposed scheme in general are plants that incinerate municipal waste or similar waste from business activities, or plants that incinerate "processed waste"⁶ and use the energy for heating houses (i.e. not for "industrial use").

The current tax rate for landfills is NOK 327⁷ per tonne waste delivered. The tax rate for waste incineration plants consists of two elements, a basic rate applicable to all plants (at NOK 82) and an additional tax, depending on whether the plant makes use of the energy produced in the waste treatment process, either for electricity or heat (up to a maximum of NOK 245). The basic tax is therefore gradually increased according to the degree to which the waste incineration plant does not make use of the energy produced. A plant that does not use *any* of its incinerations to produce energy is levied with the same tax rates as landfills (NOK 82 plus NOK 245 = NOK 327). Thus, the tax rate is differentiated according to the degree of energy recovery and utilisation.

⁵ The current tax is based on the annual tax decisions by the Parliament with further regulations in Section 3-13 of the Regulation on Excise Duties of 11 December 2001 No. 1451.

⁶ Processed waste is defined by the Norwegian authorities as waste that consists of material suitable for incineration; waste that has been sorted and processed in some manner; waste that has a specification in real market and will compete with other energy carriers; waste which has a net caloric value of at least 15 MJ/kg; waste which is stable for storing.

⁷ Figure for 2003 (first half). The tax remained largely unchanged over the past four years.

2.2.2 The amendments to the waste treatment tax

In its budget of 2003, the Norwegian Parliament decided to alter the existing final waste treatment tax. The amendments to the tax framework were proposed in *St.prp. nr. 1 (2002-2003) Skatte-, avgifts-, og tollvedtak*. The restructuring of the tax requires amending Regulation No 1451 of 11 December 2001 on special taxes. Section 3-13 of this Regulation concerns the special provisions on taxes on final waste disposal. The Authority understands that while the tax on landfills has already entered into force⁸ on 1 July 2003, the tax on waste incineration is postponed until 1 July 2004.

The main change of the tax scheme is the change of the tax from a tonnage rate to a tax on actual emissions, with a rate based on the actual environmental costs of the releases in incineration plants. According to the Norwegian Government, this reflects the true environmental costs in a more precise manner. The present tax differentiation system will be abolished and the tax deductions for the utilisations of waste energy will be repealed and be replaced by a grant scheme.

The scope of the waste treatment tax

While the amendment of the waste treatment tax brings about a change in the levy of the tax from a tonnage based to an emission based tax, the general scope of the waste treatment tax has not been amended. The exemptions to the waste treatment tax as adopted in 1999 remain the same (see above, point I, 2.2.1).

The tax rates

Waste incineration plants

The tax rates shall be levied on emissions of different pollutants measured, except for CO₂, for which the tax rate is fixed at NOK 39 per tonne waste delivered. According to the Norwegian Government, the taxation based on weight is due to the fact that the Directive 2000/76/EC⁹ has no requirements to measure emission of CO₂ and that releases of CO₂ cannot be rinsed at a reasonable cost.

The tax rate is based on an average estimate of the contents of fossil material in waste for households. Incineration plants that do not burn fossil material are exempted from this tax.

Landfills

For landfills, no tax rates directly related to the environmental costs of releases have been established. However, there is an increase in the tax rate for landfills not fulfilling the requirements in the Landfill Directive 1999/31/EC.¹⁰

Accordingly, two rates now apply, a rate of NOK 327 for landfills fulfilling the requirements of regulation dated 21 March 2002 (implementing the Landfill Directive), and NOK 427 for landfills not meeting these requirements.

⁸ See “*Budsjett 2004, 14 Resultatområde 6: Avfall og gjenvinning*”.

⁹ Directive 2000/76/EC, OJ L 332, 28.12.2000, p.9, incorporated into Annex XX, point 20 of the EEA Agreement by Joint Committee Decision 57/2003.

¹⁰ Directive 1999/31/EC, OJ L 182, 16.07.1999, p. 1, incorporated into Annex XX, point 32d of the EEA Agreement by Joint Committee Decision 56/2001.

2.3 The notified aid scheme

2.3.1 Introduction

The new tax regime, as described above, no longer provide for tax reductions depending on energy utilisation. According to the Norwegian authorities, this leads to higher unit production costs and creates a competitive disadvantage for energy production from waste in comparison to energy production from other sources. The increased unit costs of utilising energy in the incineration plants is assessed to be about NOK 0.10 pr. kWh.¹¹

To stimulate the utilisation of unexploited potential (which according to the Norwegian Government involves an increase by 2 TWH by 2010 and an annual increase of 300 GWh), a grant scheme is proposed, which relates to the actual amount of energy produced, rather than having reduced tax rates according to the percentage of the energy utilised by the plants as under the current system. The Norwegian authorities argue that direct subsidies can be targeted more precisely towards energy utilisation than the former tax differentiations.

2.3.2 Legal Basis

The legal basis of the aid scheme will be a special regulation pursuant to Section 33 of Act of 13 March 1981 No. 6 relating to Protection against Pollution and on Waste (“*Lov om vern mot forurensninger og om avfall*”), i.e. (draft) Regulation on aid for the utilisation of energy from final waste treatment plants that are required to pay tax on final waste treatment (“*Utkast til forskrift om tilskuddsordning til energiutnyttelse fra avgiftspliktige sluttbehandlingsanlegg for avfall*”), hereinafter the Draft Regulation.

The Legal Basis for the State support is the annual budget decision by Parliament, *St.prp.no 1 (2002-2003) Miljøverndepartementet and B.innst S.Nr.9 (2002-2003)*.

2.3.3 Form of aid and aid beneficiaries

The potential aid recipients must be waste incineration plants or landfills covered by the waste treatment tax.¹²

This implies that the waste incineration plants covered by the tax and the proposed scheme in general will be plants that incinerate municipal waste or similar waste from business activities, or plants that incinerate “processed waste” and use the energy for heating houses, i.e. not for “industrial use”.

The Norwegian Government has identified 21 waste incineration plants as potential beneficiaries of the scheme, i.e. the undertakings being covered by the current tax on final waste treatment as of 1 January 2002.

¹¹ Based on the value of the tax deductions divided by the amount of energy produced in 2001 (960GWH).

¹² The landfills and plants exempted from the tax will not be granted aid in order to avoid the unintended benefit of both avoiding the tax and in addition being eligible for grants.

As for the landfills, the aid will be given for the energy production from landfill gas. No further details on the expected aid beneficiaries were given, since very few landfills use energy recovered from landfill gas today.

The aid is given in the form of grants.

2.3.4 Eligible costs

The aid is granted on the basis of the energy produced and marketed. A distinction is made on energy used for heating purposes and energy converted to electricity.

According to section 3-1 of the Draft Regulation, in the case of energy which is delivered as *heat energy* for district heating or collective heating, aid shall be given for the number of kWh for which delivery can be documented. Energy converted into *electric power*, can receive aid for the amount of energy measured in kWh that is delivered as actual electric power to a specific customer or to the power grid. The aid is conditional on invoices or other equivalent documentation confirming the actual energy delivered.

The grant is connected to the energy production from the renewable part of the waste. The energy production that is related to the incineration of the fossil non-renewable part of the waste (plastic) is deducted from the grant. This leads to the creation of two different aid rates.

- a) A high rate will apply to incineration plants which can document that they only incinerate separated fractions of waste that do not contain plastic or other fossil materials.

It also applies to all *landfills*, which utilise methane gas as energy, because energy production from methane gas from land fillings is solely based on the biodegradable fraction in the waste.

- b) A low rate, which constitutes 60% of the high rate, will apply to those waste incineration plants, which incinerate waste that may contain fossil material.

The difference between the two rates is based on estimates showing that the average content of fossil materials in household or mixed municipal waste is 13%, which accounts for 40% of the energy potential contained in the waste. The firms who receive the low rate thus receive a grant corresponding to the estimated 60% of the energy potential which stems from renewable sources. The Norwegian Government states that the proportion of 13% of non-renewable energy sources in waste is an average estimate. The same is the case for energy potential (40%) as a result of using non-renewable material. According to the Norwegian Government, it would be very difficult and costly to get information on the exact fractions for each individual waste incineration plant.

The rates are based on the yearly Parliamentary budget decisions. In the latter half of 2003, the rates are estimated to be respectively NOK 0.10 pr. kWh (high rate) and NOK 0.06 per kWh (low rate). These figures are derived from the following calculation, based on the budgetary allocation of NOK 80 million and on the estimated output from the two types of processes.

$$1\,300\,000\,000 \text{ kWh} \times 0.60X + 50\,000\,000 \text{ kWh} \times X = \text{NOK } 80\,000\,000,$$

whereby X is the high rate, and 0.60X the low rate. 1 300 000 000 kWh are expected to be calculated with the low rate (i.e. waste containing fossil material), whereas 50 000 000 kWh are calculated according to the high rate. On that basis, the high rate is calculated and rounded off to NOK 0.10 and the low rate is consequently NOK 0.06 per kWh.

This level would – according to the Norwegian Government - imply a compensation level of the same magnitude as the value of the current tax differentiation.

According to the Norwegian Government, the grant rate will be determined annually and be dependent on the general price of competing energy. The Norwegian Government has accepted that the rate should not exceed the maximum of EUR 0.05 (some 0.40 NOK) per kWh permissible under the Authority’s State Aid Guidelines, Chapter 15, paragraph 58, and has proposed to insert this maximum threshold into the Draft Regulation.

2.3.5 Calculations submitted by the Norwegian authorities for analysis of the aid scheme under the Authority’s State Aid Guidelines

Information submitted for the assessment under option 1 on operating aid for renewable energy sources of Chapter 15 the Authority’s State Aid Guidelines

The Norwegian Government submitted that, due to waste-to-energy production requiring a considerable investment in production and cleansing technology, producers of energy from waste will have to bear environmental costs which they will not be able to get credit for in the energy market. The Norwegian authorities submitted a comparative table on estimated production costs in the notification:

Table 1 Production costs of various energy sources

Energy source	Energy production costs (Euro/kWh)	Energy production costs (NOK/kWh)*
Light oils	0.052	0.420
Heavy oils	0.038	0.310
Gas	0.040	0.326
Waste to energy (100% energy utilisation)	0.045	0.367
Waste to energy (75% energy utilisation)	0.060	0.489

*Exchange rate: 1 Euro= 8.16 NOK, calculated by the Authority

This information on the production costs is necessary for an assessment of the aid scheme under option 1 in Chapter 15 regarding operating aid for renewable energy of the Authority’s State Aid Guidelines. However, the Norwegian Government had not submitted any market price for the energy concerned, as required under paragraph 54 of Chapter 15.

The Norwegian Government admits that the figures on production costs in table 1 contain elements of uncertainty, and that the numbers on waste-to-energy are based on a high technology plant. *Firstly*, as regards the waste-to-energy figures, the Norwegian Government submits that the production cost is connected to a certain size

of such plants and that alternative costs related to other energy carriers may vary widely. Other crucial factors could be whether the alternative costs are connected to old or new installations and what prices each project achieves in the market. *Secondly*, the Norwegian Government states that the costs related to energy productions are difficult to separate from the costs related to waste treatment as a whole.

The Norwegian authorities have later submitted data which compare production costs of heat energy based on waste with market prices for regular electricity for industry and households.

Table 2 Production costs of waste-based-energy compared with the market price for electricity

Production cost Waste based energy (based on a medium sized plant, 75 % energy utilisation)	Market price electricity	
	Industry	Households including tax on electricity
NOK 0.45 kWh¹³ (not containing negative treatment cost of waste)	NOK 0.176 kWh	NOK 0.357 kWh

Information submitted for the assessment under option 3 on operating aid or renewable energy sources of Chapter 15 of the Authority’s State Aid Guidelines

In its notification, the Norwegian Government first submitted the following table, demonstrating the environmental costs associated with various energy carriers. A background calculation was submitted to the Authority upon request.¹⁴

Table 3 External costs of different energy carriers

	Waste to energy plant	Light oils	Heavy oils
Euro/kWh	0.0025	0.0063	0.024
NOK/kWh*	0.020	0.051	0.196

* Exchange rate: 1 Euro= NOK 8.16, calculated by the Authority

In order to provide a comparison with the environmental costs incurred and not paid by energy sources competing with waste, the Norwegian Government subsequently submitted the three tables below. It should be noted that the comparison provided by the Norwegian authorities only concerned *heat production* by heavy oil. There is no comparison given between waste-to-energy production and other energy sources as regards *electricity* production. Electricity production by waste is considered by the Norwegian authorities to be of insignificant amounts and therefore considered as not relevant, due to competition in the electricity market.

¹³ Table submitted by the Norwegian authorities. The small deviation compared to the production costs for this type of plant as given in table 1, results from the conversion factor.

¹⁴ That background table is not copied in the Decision, because - while explaining the details of the calculation of external costs for waste, heavy and light oil - it is only on heavy oils that the Norwegian Government also presents a calculation for external costs *paid* by the producer.

As to the tables below, table 4 provides a review of the emissions caused by a waste-to-energy production plant and the environmental costs of such production. These costs are set equal to the payable taxes on emissions according to the tax rates of the new tax system. The table also provides figures on emissions from a plant of the same energy production capacity, but based on heavy oils. The table finally shows a calculation of *theoretical environmental costs* by energy production based on such heavy oil. The theoretical environmental costs of the energy production from heavy oil are calculated on the basis of how emissions from such production would be taxed if they were taxed as emissions from waste based production. Thus, the emissions caused by heavy oil energy production are multiplied with the *tax rates* which apply for waste-to-energy production. As to the parameters used for determining the emissions, the Norwegian authorities refer to the parameters used in Directive 2000/76/EC on the incineration of waste.

According to the Norwegian Government, the tax rates of environmental taxes is the most appropriate manner to measure external costs. The Norwegian Government submits that presently there are three main methods used in the determination of environmental costs:

- Damage costs, whereby the physical damage caused by the emissions is described, and then the value of the damages is estimated.
- Abatement costs, which present marginal costs on actions to reduce emissions as an indication of what the society is willing to pay to reduce the emissions. An environmental tax can be seen as a valuation of marginal reduction in emissions.
- Environmental indexes, which is a method connected to estimation of external costs due to emission of hazardous chemicals.

The Norwegian authorities base themselves on the abatement cost method. As stated by the Norwegian Government that is “*due to that Norway, i.a. is bound by international environmental agreements, which lays down several goals on the complete emission of various substances. Through the negotiation processes that led to the agreements, the Norwegian Authorities have expressed its methods of evaluation of damages caused by the various emissions. Thus, this method also makes the basis of the development of tax rates in the new proposed tax scheme (Rapport 85/00, Miljøkostnader ved avfallbehandling, ECON)*”.¹⁵

¹⁵ Letter by the Norwegian authorities of 30.04.2003 (Doc. No. 03-2862-A).

Table 4 Tax rates, emissions and environmental costs for energy plants producing 85 GWh of energy based on waste and heavy oil¹⁶

Parameter ¹⁷	Tax rates ¹⁸ (NOK/kg)	<u>High technology waste-to-energy plant</u> 85 GWh 35.000 tons combustible waste		<u>Heavy oil</u> 85 GWh 8.900 tons heating oil	
		Actual emissions ¹⁹ Kg	Payable environmental costs ²⁰	Actual emissions ²¹ Kg	Theoretical environmental costs ²²
Dioxins	2 350 000 000	0.00	15 980.00	0.00	19 975.00
Dust (PM10)	577	225.00	129 825.00	11 560.00	6 670 120.00
Hg (mercury)	27 600	1.80	49 680.00	0.00	0.00
Cd (cadmium)	53 100	0.01	477.90	0.20	10 620.00
Pb (lead)	63 400	0.02	1 426.50	2.40	152 160.00
Cr (chromium)	571 000	0.07	38 542.50	0.20	114 200.00
Cu (copper)	307	0.07	20.72	0.70	214.90
Mn (manganese)	95 000	0.07	6 412.50	0.30	28 500.00
As (arsenic)	9 710	0.01	109.72	0.10	971.00
Ni (nickel)	9 300	0.07	627.75	42.50	395 250.00
HF (hydrogen fluoride)	20 400	0.70	14 280.00	8.50	173 400.00
HCl (hydrogen chloride)	102	1057.00	107 865.00	238.00	24 276.00
Nox (NO ₂) (nitrogen dioxide)	15	15975.00	239 625.00	37 655.00	564 825.00
Sox (SO ₂) (sulphur dioxide)	17	2295.00	39 015.00	110 330.00	1 875 610.00
CO ₂	0.2	7 350000.00	1 470 000.00	24 114 500.00	4 822 900.00
Environmental costs NOK			2 113 887.60		14 853 021.90
Environmental costs NOK per kWh			0.0249		0.1747

¹⁶ The Authority assumes that some inaccuracies in the figures result from a round off effect.

¹⁷ In accordance with Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste.

¹⁸ The tax rates are in accordance with the legal act introducing the new tax scheme for the latter half of 2003, except the tax on CO₂, which is based on an evaluation according to the Kyoto Protocol.

¹⁹ Source: *Energos miljønotat* Nr. 5-June 2000.

²⁰ Actual payable environmental tax, according to the external costs produced= Tax rates x actual emissions.

²¹ Source: *Energos miljønotat* Nr. 5-June 2000.

²² Theoretical environmental costs due to the tax rates (external costs) on incineration of waste.

The following calculations (table 5 and table 6) show how much of the estimated external costs are paid by the energy producers who base their production on heavy oil. Firstly the taxes paid by producers from heavy oil are calculated. For this purpose, the taxes on

- heating oil,
- Co2 and
- sulphur

are taken into account (table 5).

However, since the Norwegian Government argues that the heating oil tax is not an environmental tax, it provides two calculations, one including, another excluding, that tax.

Table 5 Taxes on energy plant using heating oil ²³

Tax rates 2003 NOK/litre	Tax on heating oil converted NOK/kg	Payable tax	Payable tax, except the tax on heating oil
Tax on heating oil = 0.398	0.410	3 649 000	
Tax on CO ₂ = 0.50	0.520	4 583 500	4 583 500
Tax on sulphur = 0.21	0.216	1 922 400	1 922 400
	Sum	8 873 300	5 224 300
	NOK per kWh	0.119	0.077

Table 6 compares the theoretical external costs of energy production from heavy oil with the costs actually paid by the producers. Again, two calculations are presented, depending on whether the heating oil tax is considered to be relevant for the present assessment.

Table 6 Heat production from heavy oil: external costs not paid, with and without the tax on heating oil

	Taxes included	Total external costs ²⁴	External costs paid due to the taxes on oil	External costs not paid
NOK per kWh	CO ₂ ,SO ₂ , Heating oil	0.175	0.119	0.055
NOK per kWh	CO ₂ , SO ₂	0.175	0.077	0.098

Not taking the heating oil tax into account, the Norwegian Government argues that an amount of 0,098 NOK per kWh of external costs is not paid by the non-renewable energy producers, whereas waste-to-energy producers pay their full environmental costs via the tax scheme.

As to the energy production from methane from landfills, Norway stipulates that waste-to-energy producers pay their full tax. Contrary to the waste incineration tax, this tax is not emission based, but a differentiated tax at NOK 327 and 427 respectively. No calculation is given as to the external costs caused by landfills.

²³ Energy plant using 8900 tons heating oil for producing 85 GWh of heat energy as stipulated in table 4. The table has been submitted by the Norwegian authorities. Some inaccuracies seem to result from a calculation error.

²⁴ Figure taken from table 4.

2.3.6 Cumulation of aid

Final waste treatment plants might be eligible for investment aid through the Grant program for introduction of new energy technologies, which is a programme funded by the Norwegian Energy Fund and managed by the newly established administrative body Enova. The programme was notified to the EFTA Surveillance Authority on 10 June 2003 (Doc. No 03-3705-A). The Norwegian authorities state that the Norwegian Pollution Control Authority and Enova will coordinate the aid schemes in accordance with Chapter 15 of the Authority State Aid Guidelines and that the rules governing the Energy Fund and the activities of Enova will ensure that the cumulation rules of the State Aid Guidelines are respected.

2.3.7 Duration/budget

The notified aid scheme is envisaged to enter into force on 1 July 2004. The scheme is not limited in time, but the Norwegian Government has agreed to a re-notification within five years.

The Norwegian Parliament will decide to continue the scheme through annual budget allocations. For 2003 Parliament had originally foreseen NOK 40 million for the latter half of 2003. NOK 80 million are foreseen on an annual basis.

3. General comment by Norway

In its notification, the Norwegian authorities argued that the aid scheme, which grants operating aid for renewable energy sources, falls within the scope of what should be permitted under the Authority's State Aid Guidelines, in particular Chapter 15 on Environmental Aid. In view of the superior objectives of the Environmental Guidelines, the Norwegian Government argues that the Authority's State Aid Guidelines should be interpreted broadly and that option 3 (Chapter 15, section D.3.3.3) and option 1 (Chapter 15, section D.3.3.1) may cover the aid scheme.

The Norwegian Government admits that although various proposals could fit different options under the Guidelines, the complete aid scheme did not completely fit any of the three options under the rules applicable to operating aid for renewable resources. In its correspondence with the Authority subsequent to the notification, Norway asked the Authority to assess the compatibility of the system primarily under option 3.

II. APPRECIATION

1. Scope of the present decision

The present decision deals with the aid scheme for the utilisation of energy from final waste treatment plants that are required to pay tax on final waste treatment, as notified by the Norwegian authorities.

2. Procedural requirements

Pursuant to Article 1 (3) in Part I of Protocol 3 to the Surveillance and Court Agreement, *“the EFTA Surveillance Authority shall be informed, in sufficient time to enable it to submit its comments, of any plans to grant or alter aid (...). The State*

concerned shall not put its proposed measures into effect until the procedure has resulted in a final decision”.

By submitting the notification for the aid scheme for the utilisation of energy from final waste treatment plants that are required to pay tax on final waste treatment by letter dated 29 January 2003 (Doc. No 03-654-A), the Norwegian authorities have complied with the notification requirement. The Authority can therefore conclude that the Norwegian Government has respected its obligations pursuant to Article 1 (3) in Part I of Protocol 3 to the Surveillance and Court Agreement.

3. State aid within the meaning of Article 61 (1) of the EEA Agreement

Article 61(1) of the EEA Agreement reads as follows:

“Save as otherwise provided in this Agreement, any aid granted by EC Member States, EFTA States or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Contracting Parties, be incompatible with the functioning of this Agreement.”

In order for the notified aid scheme to be qualified as State aid within the meaning of Article 61 (1) of the EEA Agreement, the following criteria must be fulfilled:

3.1 Presence of State resources

The grants are based on State budgetary allocations and constitute state resources.

3.2 Favouring certain undertakings or the production of certain goods

The grants to waste incinerations plants and landfills, which are subject to the waste treatment tax, give these undertakings a financial advantage which they otherwise would have not enjoyed. The grants indirectly mitigate – at least in part - the charges resulting from the payment of the waste treatment tax.

The support will only favour a limited group of waste incineration plants and landfills (an estimated number of 21 undertakings), namely those which are paying the final waste treatment tax and which provide waste based energy for collective/district heating and/or electricity to the power grid.

The financial assistance provided to this selective group of waste-to-energy producers strengthens their position in the energy market (for heat and electricity). The undertakings receiving financial support under the aid scheme will also enjoy a financial advantage over those waste incineration plants and landfills which do not recover and utilise the waste for energy production.

3.3 Distortion of competition and effect on trade between Contracting Parties

The aid beneficiaries exercise an economic activity on energy and waste treatment markets where there is, or could be, trade between Contracting Parties. As can be seen from table 7 of this decision, energy production from waste competes with other energy sources, which could be provided by other undertaking in the EEA. The strengthening of the position of the relevant undertakings as compared with other undertakings competing with them within the EEA must therefore be regarded as

distorting, or threatening to distort, competition and affecting trade between the Contracting Parties.

3.4 Conclusion

The proposed aid scheme constitutes state aid within the meaning of Article 61 (1) of the EEA Agreement. In the following, it will be analysed whether the proposed aid scheme is compatible with Article 61 (3) of the EEA Agreement.

4. Compatibility of the aid scheme with Article 61 (3) of the EEA Agreement in combination with Chapter 15 of the Authority’s State Aid Guidelines on Aid for Environmental Protection

Article 61(3)(c) of the EEA Agreement regards aid to facilitate the development of certain economic activities, where such aid does not adversely affect trading conditions to an extent contrary to the interests of the Contracting Parties, as compatible with the functioning of the EEA Agreement. The Authority has undertaken an assessment of the compatibility of the notified aid scheme under Article 61(3) (c) of the EEA Agreement, in line with the Authority’s State Aid Guidelines on Aid for Environmental Protection. The Authority has doubts whether the proposed aid scheme fulfils the criteria set out in the relevant Chapter 15 of the Guidelines.

The aid granted by the Norwegian Government constitutes operating aid, which relieves waste incineration plants and landfills of the expenses which a company normally would have had to bear in its day-to-day management or its usual activities.²⁵ Chapter 15 of the Authority’s State Aid Guidelines (hereinafter “the Guidelines”) sets out specific rules according to which operating aid for environmental purposes should be assessed.

Since the Norwegian Government argued that the proposed scheme should be assessed primarily under Chapter 15, D. 3.3.3 - option 3 - for assessing operating aid, the assessment below will commence with this option.

4.1 Compatibility of the aid scheme under Chapter 15, D.3.3.3 – Option 3

Paragraph 58 of the Guidelines stipulate that “*EFTA States may grant operating aid to new plants producing renewable energy that will be calculated on the basis of the external costs avoided*”.

4.1.1 Renewable energy

According to paragraph 7 of Chapter 15 the Guidelines in conjunction with Article 2 (a) of Directive 2001/77/EC²⁶ renewable energy sources shall mean renewable non-fossil energy sources, *inter alia* comprising biomass and landfill gas. Biomass means the biodegradable fraction of products, for waste the biodegradable fraction of industrial and municipal waste (Article 2 (b) of Directive 2001/77/EC). The

²⁵ For the definition of operating aid, see Case T-459/93 *Siemens SA v. Commission* [1995] ECR II - p.1675.

²⁶ Directive 2001/77/EC of the European Parliament and of the Council on the promotion of electricity produced from renewable energy electricity market, OJ L 283, 27.10.2001, p. 33.

Norwegian authorities have argued that the proposed aid scheme is limited to energy production based on biomass in the meaning of Directive 2001/77/EC. For landfill gas (methane) the Norwegian authorities confirmed that every utilisation of methane gas from land fillings is solely based on the biodegradable fraction and will therefore receive the high grant rate (see point 2.3.4).

For waste, two aid rates are established, depending on whether the application for support is made for waste which is free from fossil fractions or whether the waste is “mixed”. Incineration plants using fossil-free waste get the full grant, stipulated presently at NOK 0.10 per kWh. The incineration plants which use mixed waste receive 60% of this grant, i.e. NOK 0.06 per kWh. For establishing this reduced rate, it is assumed that ordinary municipal waste contains 13% *non-renewable* fossil energy material, which constitutes 40% of the potential energy contained in the waste. Renewable materials, which are non-fossil, are consequently supposed to account for 60% potential energy in mixed waste. The Norwegian authorities argue that while accepting that in an individual case aid might be given to companies whose waste contains a *higher* proportion of fossil material than the assumed average of 13% (which are assumed to result in 40% of potential energy contained), it would not be possible to calculate the exact amount for each individual firm. According to the Norwegian authorities, a company interested in receiving the high rate, would have all interest to establish mechanisms to demonstrate that its energy production is based on waste with a lesser fraction of fossils.

While the Authority does not, in general, rule out that due to the difficulties in gathering company data, an average calculation might be acceptable, the Authority notes that it has not been given any information, on how the Norwegian Pollution Control Agency established the percentages 13% of fossil content and 40% in energy potential. Especially, since the Norwegian Government points out that it does not have access to individual company data, the Authority has no means of assessing on which basis the quoted percentages have been calculated and what any range of deviation from this apparent average figure might amount to. It would for example be of interest to know what the highest possible percentage of fossil material (i.e. the ‘worst case’ which - due to the proposed average calculation - would still profit from the 60% rate) a waste treatment undertaking would handle.

Such information is important for the Authority’s assessment under the State Aid Guidelines, according to which, aid should be given only to renewable energy sources, i.e. the biodegradable fraction of waste. Support under the Guidelines is not envisaged for fossil material. The information is further necessary, in order to ensure that the Norwegian support scheme does not promote the incineration of non-separated municipal waste, if such promotion undermines the waste treatment hierarchy, as stipulated in recital 8 of Directive 2001/77/EC in combination with Articles 3 and 4 of Directive 75/442/EEC.²⁷ The Authority notes that there are no general restrictions concerning the amount of plastics in the waste in place, so that it must be ensured that the granting of aid does not lead to wrong incentives which provoke a lessening of recycling. While not excluding that the tax on waste incineration might favour recycling at the expense of incineration, and that the aid scheme favours the utilisation of waste at the expense of landfills in line with the waste hierarchy, the Authority is still concerned that, by allowing a possibly too generous rate of 60% for mixed wastes containing fossil elements, the general

²⁷ Directive 75/442/EEC, OJ L 194, 25.07.1975, p.39, incorporated into Annex XX, point 27 of the EEA Agreement.

incentives for plants to separate waste for recycling purposes are reduced. Since it appears that waste incineration resulting in energy utilisation cannot automatically be regarded as a recovery operation rather than a disposal operation,²⁸ the Authority is concerned that a too generous low grant rate would support waste incineration to the detriment of separating and recycling waste.

The Authority is not yet convinced that a lower grant rate (based e.g. on the worst case scenario) than the notified low grant rate, would jeopardize the efficiency of the aid system.

4.1.2 The calculation of external costs avoided

According to paragraph 58 of Chapter 15 of the Guidelines, aid may be granted on the basis of external costs avoided. According to the Guidelines,

“[external costs]... are the environmental costs that society would have to bear if the same amount of energy were produced by a production plant operating with conventional forms of energy. They will be calculated on the basis of the difference between, on the one hand, the external costs produced and not paid by renewable energy producers and, on the other hand, the external costs produced and not paid by non-renewable energy producers. To carry out these calculations, the EFTA State will have to use a method of calculation that is internationally recognised and has been communicated to the Authority. It will have to provide among other things a reasoned and quantified comparative cost analysis, together with an assessment of competing energy producers' external costs, so as to demonstrate that the aid does genuinely compensate for external costs not covered. At any event, the amount of the aid thus granted to the renewable-energy producer must not exceed EUR 0,05 per kWh.”

In their notification, the Norwegian authorities submitted a table which compared the external costs of waste-to-energy production with light oil and heavy oils (see Table 3 above). In further correspondence with the Authority, a more detailed comparison was only submitted with regard to heavy oils (see Table 4, above point I, 2.3.5).

The Authority has the following doubts as to whether the calculation of external costs on that basis can be considered sufficient under paragraph 58 of Chapter 15 of the Guidelines, and as to whether the calculation demonstrates that the aid is a genuine compensation for external costs not covered.

- (1) The Norwegian authorities have not explained why the original comparison with light oils was omitted for the purpose of calculating the external costs avoided. The Norwegian authorities have simply stated that waste-to-energy plants will, to a large extent, substitute oil, but have not explained why their comparative cost analysis²⁹ does not extend to light oils. Furthermore, the Authority cannot exclude that there are other competing sources for heat production (district and collective heat), e.g. electricity, for which no

²⁸ Judgement of the European Court of Justice of 13 February 2003, *Case C-458/00 Commission v. Luxembourg* [2003] ECR I-1553, paragraph 31 seq. See also COM (2003) 301 final, where it is expressed that while e.g. landfill taxes are an incentive to change waste management choices, these taxes must be complemented by other instruments so as to avoid diverting mixed waste in bulk towards incineration.

²⁹ Corresponds to Table III 3, Comparative cost analysis in the letter of the Norwegian authorities dated 30.4.2003 (Doc. No 03-2862-A).

comparative data have been supplied or explained why they are not relevant (see also below).

- (2) For district heating – not for collective heating – the Norwegian authorities have submitted an overview of different energy carriers³⁰, which shows that also bio energy, heat pumps, oil, gas and in particular electricity are used for heat production. However, the Norwegian Government has not provided any comparative data for these other energy carriers, so that it is not possible for the Authority to make an assessment of the external costs avoided under the State Aid Guidelines. In particular it appears that, at least for district heating, the more relevant comparison would have been the production of heat by electricity which is the closest substitute according to the table below.

Table 7 Energy sources used for district heating

Coal	0.04 TWh
Waste	0.82 TWh
Waste heat (surplus heat)	0.16 TWh
Bio energy	0.16 TWh
Heat pump	0.16 TWh
Oil	0.16 TWh
Electricity	0.52 TWh
Gas	0.04 TWh

- (3) The Authority cannot exclude a risk of overcompensation for heat production. As stated above (see calculation under point I, 2.3.4), the Norwegian Government foresees an annual budget of NOK 80 million in support of waste incineration plants.

The Authority finds, that – following the comparison with heavy oils (see above Table 6 at point I, 2.3.5) - if the external costs avoided were to be quantified at NOK 0.55 per kWh, the budgetary allowance should not exceed NOK 45.65 million.³¹ This includes the payment of the heating oil tax by energy production based on heavy oil.

- (4) The Norwegian Government argues, however, that the heating oil tax should not be taken into account for calculating the amount of external costs *paid*. The Authority is not convinced that the heating oil tax should not be regarded as an environmental tax and therefore not be taken into account when calculating the external costs paid by producers of heat using heavy oils as a source. The Norwegian Government has explained that the heating oil tax was introduced to avoid substitution of the use of electricity by the use of heating oil. However, since the introduction of the electricity tax aims at decreasing consumption for environmental purposes³², the corresponding rise of the heating oil tax likewise follows an environmental purpose, namely preventing that the environmental aim of the electricity tax being jeopardized, due to a switch to heating oil.

³⁰ Table 1 in the letter of the Norwegian Government of 6.10.2003.

³¹ $1\,300\,000\,000\text{ kWh} \times 0.60 \times \text{NOK } 0,055 + 50\,000\,000\text{ kWh} \times 0,055 = 45\,650\,000\text{ NOK}$.

³² See Str.prp.nr.1, 1999-2000, point 3.8 Avgift på elektrisk kraft.

Even if this was considered as an indirect environmental effect, in the Authority's preliminary view, this is sufficient to classify the tax as "environmental" under the Guidelines (Paragraph 7), which stipulate that "*one likely feature for a levy to be considered as environmental would be that the taxable base of the levy has a clear negative effect on the environment. However, a levy could also be regarded as environmental if it has a less clear, but nevertheless discernable, positive effect*". The Norwegian Government had itself argued that the heating oil tax was introduced to "*prevent an environmental unfortunate increase in the use of oil for heating purposes*".³³

- (5) The Authority further notes that the calculation of external costs and consequently the level of taxation is based on high technology waste-to-energy plants. However, as the Norwegian Government states, the existing waste incineration plants also cover low technology plants with presumably higher emission levels. While the Authority could possibly accept that due to stringent regulatory demands, in the future low technology plants will close down and should not be used as a reference factor for the future, the Authority also notes that the Norwegian Government has stressed that, for the time being, the scheme is aimed at *existing* (at the moment 21 identified) waste incineration plants, see also below 4.1.4.

The Authority has not received information on how many of the existing plants are low technology plants. Consequently, the Authority cannot be sure that an external cost calculation based solely on high technology plants is the correct basis for approving aid under the Authority's State Aid Guidelines. To the extent that waste incineration plants cause more pollution and consequently bring about higher environmental costs than they are charged in taxes, the external costs avoided through such plants will be reduced compared to conventional energy production.

- (6) The Authority also notes that as to waste-to-energy production for the purposes of electricity, the Norwegian Government has not submitted a calculation comparing the external costs produced and paid by renewable energy producers and producers producing energy from traditional energy sources. The Norwegian Government stated that in 2001, heat production from waste amounted to 0.9 TWh, while electricity production based on waste constituted 0.05 TWh implying that heat energy constituted about 95% of all the waste based energy production. However, while it is true that the envisaged aid scheme mainly concerns heat production, the fact cannot be neglected that, with regard to electricity production, the aid scheme has an effect on competition in the electricity market. In that respect, Norway has not submitted any data which would make it possible for the Authority to assess the external costs. Neither has it received sufficient information on the competitive situation in the electricity market.
- (7) The Authority notes in particular, that no calculation has been presented for landfills. The Norwegian Government argues that the landfills pay their full external costs through the tax on landfills (NOK 327, respectively NOK 427). However, the Authority notes that the calculation of the tax is not based on emissions and that the low tax rate is the same as the one which was applied in

³³ Letter by the Norwegian Government of 30.04.2003 (Doc. No 03-2862-A).

1999 when the tax was first introduced. The Authority does not have sufficient information on whether the calculation of the landfill tax rate at the time was based on environmental impacts, which are still valid today.

4.1.3 Internationally recognised method

The Authority notes that only with regard to heavy oils has a more detailed and reasoned calculation been submitted (see Table 4 under point I, 2.3.5), whereas comparisons with other competing energy sources for heat production and figures regarding the use of waste for electricity production have not been submitted. It is therefore only for the comparison between waste-to-energy and heavy oils for heat production that the Authority is able to assess whether the calculation submitted by the Norwegian authorities is based on an internationally recognised method.

The Norwegian authorities have explained (see above point I, 2.3.5) that there are three methods regarding the calculation of external costs: damage costs, abatement costs and environmental indexes. The method primarily used for the calculation is the abatement cost method, which according to the Norwegian authorities and with references to international environmental agreements, calculate marginal costs on actions to reduce emissions as an indication of what the society is willing to pay to reduce the costs. The Norwegian authorities see environmental taxes as a valuation of marginal reduction in emissions. However, for the following reasons, the Authority has doubts as to whether the calculation can be accepted as being based on an internationally recognised method.

- (1) *Firstly*, the Authority notes that the abatement method has not been used throughout the calculation. As the Norwegian Government stipulates, the valuation of various gases are “*mostly*” based on the abatement cost analysis. The Authority can therefore not assess, whether the method is deviated from for certain emissions. The estimate on dust is based on valuation of health damage and the valuations of hazardous substances are based on indexes that rank these substances according to damage potential. It therefore appears that the calculation of external costs is based rather on a *combination of methods* than the abatement costs method alone. The Authority does not have sufficient information to assess, and presently doubts, whether this combination is a correct basis for calculating external costs under the Guidelines.
- (2) *Secondly*, Norway has not yet substantiated that this method (or combination of methods as described above) is internationally accepted. Norway has stated that the figures presented in the evaluation of external costs are based on methods used within basic research in Norway which are not different from the internationally approved methods used in other countries. No proof has been given to show that the methods used by Norway are in line with international standards – the report 1999/32 by Norway Statistics has not been submitted to the Authority (*Fremskrivning av avfallsmengder og miljøbelastninger til sluttbehandling av avfall*).

Norway further has stated that it is bound to use the abatement method by international environmental agreements, and that through the negotiation process that led to the agreements, the Norwegian authorities have expressed its methods of evaluation of damages. However, from the “expression of methods” the Authority cannot conclude that the methods are indeed

internationally accepted. The report 85/00 *Miljøkostnader ved avfallsbehandling, ECON*, has not been submitted to the Authority.

The Authority further notes that the 2001 external costs study undertaken by the European Commission “ExternE” concerning environmental costs of electricity production was based on the damage cost (bottom-up) method, which also included waste incineration. That research project was undertaken in 20 sub-research projects over 10 years and has developed a methodology – the impact pathway approach – which measures the emissions and dispersions and assesses the impact of these emissions (e.g. on health, marine life, etc.).³⁴ The ExternE cost methods expresses some reservations as regards so-called cost control or abatement method.³⁵

In the absence of precedents in case practice, the Authority therefore cannot – without further investigation - assess whether for the purpose of calculating aid, the abatement cost methods is appropriate.

4.1.4 New plants

According to paragraph 58 of the Authority’s State Aid Guidelines operating aid should only be given to *new* plants. Even if the notion of “new plants” could possibly be read to cover “new investments”, the Authority is not entirely certain whether and to what extent, the simple continuation of support to waste incineration qualifies under that system. In this regard, the Authority notes that it is still unclear which objectives the scheme intends to follow and in which respect the aid scheme is a means to achieve them. Norway argues that the aid scheme should bring about an increase of waste-to-energy production of 300 GWh annually and a total increase by 2 TWh by 2010. At the same time Norway is arguing that the support is necessary to avoid a decrease in production resulting from the repeal of the tax reductions. While the Authority takes note of Norway’s reasoning that there is still capacity for increased productions in the existing plants, for accepting an incentive effect, it needs to understand how this *increased* production would be possible if the amount of support has the same magnitude as the advantage the undertakings enjoyed under the current tax differentiation scheme. Whether a support scheme which simply aims at avoiding a decrease in production due to a change in the tax system, can qualify under paragraph (58) of Chapter 15 of the State Aid Guidelines, needs to be assessed further. The Authority therefore still has doubts whether aid to existing plants under option 3 can be accepted.

4.1.5 Re-investment

According to paragraph 58 of the Authority’s State Aid Guidelines, the amount of aid granted to producers that exceeds the amount of aid resulting from option 1 must be reinvested by the firms in renewable sources of energy. This requirement applies to any operating aid below Euro 0.05 per kWh which is otherwise permissible. In this

³⁴ Press release 20 July 2001, IP/01/1047. The project is continued with a follow-up project, NewEXT, see publication of 7.11.02 on europa.eu.int/comm/research/news-centre/en/env/02-10-env02.html.

³⁵ <http://externe.jrc.es/Method+Approaches.htm>. ExternE comments on the cost-control method as follows: “the method is entirely self-referencing - if the theory was correct, whatever level of pollution abatement is agreed would by definition equal the economic optimum. Although knowledge of control costs is an important element in formulating prescriptive regulations, presenting them as if they were damage costs is to be avoided”.

respect, it should be borne in mind that operating aid for renewable energy under option 1 is only allowed for plant depreciation. In order to avoid overcompensation, the Guidelines require a re-investment of that amount of aid authorised under option 3.

The Authority takes into account the argument of Norway that the level of aid is well below the threshold of Euro 0.05 per kWh, as stipulated in the Guidelines, and that the aid – as stipulated in the Norwegian draft regulation - will not exceed the permissible amount of aid under option 1. A reinvestment clause is therefore not considered to be necessary by the Norwegian authorities.

However, the Authority notes that the requirement not to exceed the threshold of Euro 0.05 per kWh is independent from the requirement to avoid overcompensation. According to the Guidelines, every payment which exceeds the amount of aid resulting from option 1 must be reinvested, regardless whether the threshold of Euro 0.05 per kWh is met, or whether the aid stays below that threshold. The Authority has not received sufficient information on the fulfilment of the criteria of option 1 the Authority has doubts as to the compatibility of the aid in this respect.

In particular, if the Authority were to allow aid to existing plants under option 3, it needs to be certain that the plant depreciation, which should not be exceeded, takes into account that, for existing plants, some of the investment might already have been depreciated. In that regard, only the part which has not yet been depreciated should be taken into account.

Conclusion: The Authority presently has doubts – based on the given information – that the proposed aid scheme is compatible with option 3 on operating aid for renewable energy sources in Chapter 15, D. 3.3.3 of the Guidelines

4.2 Compatibility of the aid scheme under Chapter 15, D.3.3.1 - Option 1

Because of the doubts regarding the compatibility with option 3 of Chapter 15, D.3.3.3. of the Guidelines, the Authority has also carried out an assessment of the compatibility of the scheme under option 1 on operating aid for renewable energies in Chapter 15, D.3.3.1 of the Guidelines.

According to paragraph 54 of Chapter 15 of the Guidelines, “*EFTA States may grant aid to compensate for the difference between the production cost of renewable energy and the market price of the form of power concerned. Any operating aid may then be granted only for plant depreciation. Any further energy produced by the plant will not qualify for any assistance. However, the aid may also cover a fair return on capital if EFTA States can show that this is indispensable given the poor competitiveness of certain renewable energy sources. In determining the amount of operating aid, account should also be taken of any investment aid granted to the firm in question in respect of the new plant. When notifying aid schemes to the Authority, EFTA States must state the precise support mechanisms and in particular the methods of calculating the amount of aid. If the Authority authorises the scheme, the EFTA State must then apply those mechanisms and methods of calculation when it comes to granting aid to firms*”.

According to paragraph 55 of the Guidelines, operating aid might be given to biomass if the State shows that the aggregate costs borne by firms after plant depreciation are *still* higher than the market price.

In its original notification, the Norwegian authorities submitted the above-mentioned table 1 to show the different productions costs of various energy sources. However, since no market price was delivered to the Authority, an assessment under option 1 in Chapter 15 was not possible. Despite detailed questions in the Authority's letter of 3 March 2003 (Doc. No 03-682-D), the Norwegian authorities did not submit sufficient information – in particular not market prices - to make such an assessment possible.³⁶ The Authority was therefore requested to assess the system under option 3 of the Guidelines. In its submission of 6.10.2003 (Doc.No 03-6911-A), the Norwegian authorities then confirmed that they would respect the requirements of option 1 (aid only given for plant depreciation, fair return on capital necessary because of the poor competitiveness etc.). The Norwegian authorities also submitted data on the price of regular electricity for households and industry in Table 2, referring to Commission Decision N 239/2001, arguing that this Decision demonstrates that this comparison is appropriate and sufficient to accept the compatibility of aid under option 1. However, the Authority notes that this information and argumentation is given in the context of assessing option 3. The Norwegian authorities did not confirm that they would calculate aid on the basis of the difference between market price and depreciation costs as required by option 1. The Norwegian Government has consequently only suggested amending the Draft Regulation in order to incorporate the necessity of not exceeding plant depreciation and including a fair return on capital. The very principle of option 1 is not integrated into the Draft Regulation.

- (1) However, even with the figures presented in Table 2, the Authority has doubts as to the compatibility of the measure under option 1, in particular since it has not been provided with a cost calculation method as required by paragraph 54 of the Guidelines. Firstly, the Authority notes that the production costs of landfills are missing. As to the production costs of waste incineration plants, the Authority notes that it still has not received any detailed and precise cost calculation method. Details on cost savings, as well as on the depreciation rate and time have not yet been given. The Authority can further not assess how many of the potential 21 beneficiaries are medium-sized, large or small waste incineration plants and whether the production costs of medium-sized plants are representative. With regard to plant depreciation, the Authority would in particular have to assess to which extent investments already have been depreciated. This results from the fact that the aid is given to 21 existing undertakings and that it is not clear to the Authority to which degree the envisaged aid mechanism is favouring an increase of renewable energy production or mainly aiming at maintaining the favourable conditions resulting from the existing system of tax differentiation. The Authority notes that in the Dutch case to which the Norwegian authorities have referred, this information was submitted to the European Commission.³⁷ With regard to the quoted market price for energy, the Authority notes that it has not received any information from which source the market price stems and where future market prices will be taken from.

³⁶ Letter by the Norwegian authorities dated 30.04.2003 (Doc No 03-2862-A).

³⁷ Also in other Commission cases, to which the Authority has drawn Norway's attention in its information request of 30 March 2003, detailed information has been submitted by the notifying EU Member State (N 651/2001, N 278/2001 and in particular N 707/2002).

- (2) The Norwegian Government further states that the production costs in paragraph 51 in Chapter 15 of the Guidelines must be interpreted as societal production costs. In line with Commission practice³⁸, the Authority does not agree with this view, which also makes the distinction between option 1 and option 3 of the Guidelines redundant. Based on that statement, the Authority presently has doubt that the Norwegian authorities would interpret the notion of production costs within the meaning of the State Aid Guidelines, when calculating aid.
- (3) Furthermore, the Authority cannot be certain that the calculation of the production costs will only cover that part directly related to the production of energy and leave those costs which result from the treatment of waste aside. The Norwegian Government has stated that it is difficult to separate the costs related to energy production from the costs of waste treatment as a whole. In the Norwegian authorities' view, if special costs related to waste collection, sorting and treatment are left out, there remains a question of how to adjust the price of waste-based fuel for the pre-processing that is inherent in most waste incineration process. While the Authority takes note of these difficulties, it also points out that it must ensure that the aid does not support activities and mitigate the related costs, which the undertakings have to bear according to obligations resulting from regulatory national and European law (i.e. Directive 2001/77/EC and Directive 75/442/EC). The Authority notes that in its latest submission the Norwegian authorities state that the production costs do not include "negative treatment of waste". However, the Authority is not certain what this statement implies and would also – on the basis of former statements by the Norwegian authorities which argued that it was impossible to separate waste treatment costs from the costs of waste-to-energy production – require a detailed analysis and calculation of the cost items under the heading "production costs".

Conclusion: The Authority presently has doubts – on the basis of the given information – that the proposed aid scheme is compatible with option 1 on operating aid for renewable energies in Chapter 15, D. 3.3.1 of the Guidelines.

4.3 Other provisions

The Norwegian authorities have questioned whether paragraph 63 of the Guidelines could serve as a legal basis for approving aid. Paragraph 63 of the Guidelines merely stipulates that "*The Kyoto Protocol calls for a limitation or reduction in greenhouse gas emissions during the period 2008-12. The Authority takes the view that some of the means adopted to comply with the objectives of the Protocol could constitute State aid but it is still too early to lay down the conditions for authorising any such aid*", but does not contain a legal basis for authorising aid. In addition, paragraph 63 addresses flexible mechanisms under the Kyoto Protocol, such as emission quota trading, and does not cover grant schemes like the one notified.

The aid at issue is not degressive and therefore also not compatible according to paragraphs 37 and 40 of Chapter 15 of the Authority's State Aid Guidelines. Paragraph 40 in conjunction with paragraph 37 of the Guidelines provides that operating aid for

³⁸ See e.g. cases referred to in footnote 37.

the promotion of waste management is “...*subject to a limited duration of five years where the aid is `degressive'. Its intensity may amount to 100 % of the extra costs in the first year but must have fallen in a linear fashion to zero by the end of the fifth year*”. The Authority does not have sufficient information to assess whether the aid would be compatible under paragraph 37 in combination with paragraph 41 of the State Aid Guidelines. The Authority does not have any information on the extra production costs, the aid being in line with the waste hierarchy and respecting the aid intensity of 50%.

HAS ADOPTED THIS DECISION:

- 1. The Authority opens the formal investigation procedure pursuant to Article 1 (2) in Part I of Protocol 3 to the Surveillance and Court Agreement against the aid scheme to utilise energy from final waste treatment plants.**
- 2. The Norwegian Government is invited, pursuant to Article 6 (1) in Part II of Protocol 3 to the Surveillance and Court Agreement, to submit its comments to the present decision within six weeks from receipt of the present decision.**
- 3. The Norwegian Government is requested to submit all information necessary to enable the Authority to examine the compatibility of the proposed State aid under Article 61 (3)(c) of the EEA Agreement, in combination with Chapter 15 of the Authority’s State Aid Guidelines on Aid for Environmental Protection, within six weeks from receipt of the present decision. Otherwise the Authority will adopt a decision on the basis of the information in its possession.**
- 4. Other EFTA States, EC Member States and interested parties shall be informed by the publishing of this decision in the EEA Section of the Official Journal of the European Union and the EEA Supplement thereto, inviting them to submit comments within one month from the date of publication.**
- 5. The decision is authentic in the English language.**

Done at Brussels, 11 December 2003

For the EFTA Surveillance Authority

Einar M. Bull
President

Hannes Hafstein
College Member