

Case No: 57702  
Event No: 323533  
Dec. No: 302/05/COL

EFTA SURVEILLANCE AUTHORITY DECISION  
OF 30 NOVEMBER 2005

on a notified scheme for research and development concerning gas technologies with improved environmental performance (“Gassnova”)

(NORWAY)

THE EFTA SURVEILLANCE AUTHORITY<sup>1</sup>,

HAVING REGARD TO the Agreement on the European Economic Area<sup>2</sup>, 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 Justice<sup>3</sup>, in particular to Article 24 and Protocol 3 thereof,

HAVING REGARD TO the Authority’s Guidelines<sup>4</sup> on the application and interpretation of Articles 61 and 62 of the EEA Agreement, in particular Chapter 14 on aid for research and development<sup>5</sup>,

WHEREAS:

**I. FACTS**

**1. Procedure**

By letter dated 20 May 2005 from the Norwegian Mission to the European Union, forwarding letters from the Ministry of Modernisation dated 13 May 2005 and the Ministry of Petroleum and Energy dated 11 May 2005, both received and registered by the Authority on 23 May 2005 (Case No 57702, Event No 319439), the Norwegian authorities

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<sup>1</sup> Hereinafter referred to as the “Authority”.

<sup>2</sup> Hereinafter referred to as the “EEA Agreement”.

<sup>3</sup> Hereinafter referred to as the “Surveillance and Court Agreement”.

<sup>4</sup> 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 Authority on 19 January 1994, published in OJ 1994 L 231, EEA Supplement 03.09.94 No 32. The Guidelines were last amended on 30.11.2005.

<sup>5</sup> Hereinafter referred to as the “R&D Guidelines”.

notified, pursuant to Article 1 (3) in Part I of Protocol 3 to the Surveillance and Court Agreement, a new aid scheme for gas technologies with improved environmental performance (Gassnova).

The Norwegian authorities provided additional information by letter dated 24 May 2005 from the Norwegian Mission to the European Union, received and registered by the Authority on 25 May 2005 (Event No 320537).

The Authority acknowledged receipt of the notification by letter dated 26 May 2005 (Event No 319439). By letter dated 20 July 2005 (Event No 323515), the Authority requested further information.

The Norwegian authorities replied to the information request by letter from the Norwegian Mission to the European Union dated 12 September 2004, forwarding letters from the Ministry of Modernisation and the Ministry of Petroleum and Energy dated 5 September 2005, received and registered by the Authority on 12 September 2005 (Event No 333462).

The Authority requested further information by letter dated 12 October 2005 (Event No 345769).

The Norwegian authorities replied by telefax from the Norwegian Mission to the European Union dated 8 November 2005, forwarding a letter from the Ministry of Modernisation dated 4 November 2005 and a letter from the Ministry of Petroleum and Energy dated 3 November 2005, received and registered by the Authority on 8 November 2005 (Event No 349216).

## **2. Description of the scheme**

### **2.1 Background**

The notified scheme is a national programme aimed at facilitating research and development<sup>6</sup> in relation to gas technologies with improved environmental performance. The scheme will be administered by a newly established administrative body, Gassnova. Gassnova will also have a coordinating role in relation to R&D concerning gas technologies with improved environmental performance funded by the Research Council of Norway<sup>7</sup> under other aid schemes already approved by the Authority.

Gassnova was established by decision of the Norwegian Government and became operational from 3 January 2005. The implementation of the scheme itself is pending until a decision is taken by the Authority.

The notified scheme forms part of a public programme named CLIMIT, which is aimed at promoting environmentally friendly gas-fired power technologies and solutions for disposal of carbon dioxide. This programme will be jointly run by Gassnova and the RCN. Gassnova will serve as the principal coordinator of this programme.

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<sup>6</sup> Hereinafter referred to as “R&D”.

<sup>7</sup> Hereinafter referred to as the “RCN”.

Support under the CLIMIT programme will be awarded either from Gassnova or from the RCN. However, the RCN will only provide funding under CLIMIT in accordance with aid schemes previously approved by the Authority, namely the schemes approved under the Decisions Nos. 217/94/COL, 249/01/COL and 171/02/COL<sup>8</sup>, and particularly the scheme “*Utvikling av renseteknologi for gasskraftverk*” (Development of CO<sub>2</sub> capture technologies for gas plants). This implies that the current notification only includes activities under the CLIMIT programme funded by Gassnova.

Under the CLIMIT programme, the RCN will, in general, provide funding for research projects, whereas Gassnova will offer funding for prototype- and demonstration projects. Gassnova will, thus, generally provide funding for projects closer to the market than projects funded by the RCN.

## 2.2 Objective

According to the notification, the objective of the scheme is to strengthen R&D in relation to gas technologies with improved environmental performance. The principal objective of the scheme is to strengthen the intensity of R&D concerning gas-fired power stations with carbon dioxide capture and storage in order to reduce CO<sub>2</sub> emissions from such power-stations.

Carbon free gas-fired power stations are facilities in which carbon dioxide is separated and captured before, during or after the electricity generating process. Treatment of carbon dioxide embraces, according to the notification, four stages:

- a. Carbon dioxide capture;
- b. handling and compressing the carbon dioxide gas;
- c. transport; and
- d. long-term storage of the carbon dioxide through injection, deposition or other applications (geological sequestration or chemical/mineral sequestration).

The present scheme includes aid to R&D in relation to all stages cited above. According to the notification, technological solutions for carbon free gas-fired power stations are, in principle, available today, but at costs that prevent commercial utilization. Therefore, the technologies are not in use. An important objective of the scheme is to develop more cost-efficient solutions for carbon dioxide separation.

According to the notification, the ultimate objective of the scheme is to bring forward and demonstrate cost-effective gas technologies at full scale. The demonstration projects funded under the scheme should allow a comprehensive life cycle assessment under real life conditions.

## 2.3 Legal basis

The scheme was adopted by the Norwegian Parliament and resources were allocated to that effect in 2004. The legal basis can be found in *NOU 2002: 7 Gassteknologi, miljø og verdiskapning* (White paper 2002: 7 Gas Technology, the Environment and Added Value), *St. meld. Nr. 9 (2002–2003) om innenlands bruk av naturgass mv.* (Report No. 9 to the

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<sup>8</sup> The state aid decisions of the Authority can be found at our website: [www.eftasurv.int](http://www.eftasurv.int).

Storting (2002-2003) On Domestic Use of Natural Gas), *Stortingsvedtak nr. 352 (2002-2003)* (Decision No. 352 to the Storting (2002-2003)), *Stortingsvedtak nr. 69 (2003-2004)* (Decision No. 69 to the Storting (2003-2004)), *Innst. S. nr. 250 (2003-2004) vedtak nr. 549* (Proposition No. 250 to the Storting (2003-2004), decision No. 549), *St. meld. Nr. 47 (2003-2004) Innovasjonsverksemda for miljøvennlige gassteknologier mv* (Report No. 47 to the Storting (2003-2004) Innovation activities for environmentally friendly gas technologies etc), *Budsjettvedtak re. Budsjett-innst. S. nr. 9 (2004-2005) fra energi og miljøkomiteen* (Budget resolution No. 9 to the Storting (2004-2005) from the Committee for Energy and Environment), *Kongelig resolusjon av 17.12.2004 Om opprettelse og fastsettelse av vedtekter og fullmakter for forvaltningsorganet Gassnova, samt forskrift om endringer i forskrift 16. desember 1977 nr. 14 og forskrift 16. desember 1977 nr. 15* (Royal decree of 17.12.2004 Concerning the establishment and decision on by-laws and authority for the administrative agency Gassnova, and Regulation on amendments to Regulation of 16.12.1977, No. 14 and Regulation of 16.12.1977, No. 15).

## 2.4 Budget and duration

The aid scheme will be financed through annual dividends of a dedicated fund of NOK 2 billion (approximately Euro 253 million) set up by the Parliament to this end. Based on the rate of interest on government securities, the Ministry of Finance has determined the annual rate of interest of the fund to be 4,59 % for a period of ten years. The annual dividends of the fund thus constitute NOK 91,8 million (approximately Euro 12 million). The Ministry of Petroleum and Energy can allocate annual dividends from this fund to finance Gassnova's activities.

The dedicated fund was established on 1 July 2004. Therefore, for 2005, only dividends for six months, NOK 45,9 million (approximately Euro 5,8 million) from the fund were available to the scheme. On this basis, the Parliament decided to appropriate an additional NOK 50 million (approximately Euro 6,3 million) to the scheme for the year 2005 in order to ensure available funds for this year equivalent to the annual dividends of the fund.

The duration of the scheme is ten years.

## 2.5 Form of aid

The aid is granted in the form of non-refundable direct grants.

## 2.6 Eligible applicants

According to the notification, all entities that present a project within the scope of the programme and that fulfil the conditions under the scheme may be eligible for aid under the scheme, including undertakings as well as higher education or research establishments. The Norwegian authorities, however, state that the core group of aid recipients will be larger undertakings operating in the manufacturing industry or in the oil/gas or electricity sector.

## 2.7 Eligible costs

According to the notification, the eligible costs consist of the following:

- Costs of personnel employed solely on the research activity;
- costs of durable assets used solely and on continual basis for the research activity (equipment and instruments);
- costs of land and premises used solely and on continual basis (except where transferred commercially) for the research activity;
- costs of consultancy and equivalent services used exclusively for the research activity, including the research, technical knowledge and patents, etc. bought from outside sources;
- additional overheads incurred directly as a result of the research activity; and
- other operating expenses (costs of materials, supplies and similar products incurred directly as a result of the research activity).

## 2.8 R&D stages

Funding under the aid scheme may, in principle, be granted for R&D on any of the stages referred to in Section 14.2.1 of the R&D Guidelines, *i.e.* fundamental research, industrial research and precompetitive development. In addition, feasibility studies related to these R&D stages qualify for aid under the scheme.

As already stated, the present aid scheme will form part of the CLIMIT programme aimed at promoting environmentally friendly gas-fired power technologies and solutions for disposal of carbon dioxide. The notification solely concerns funding under the scheme provided by Gassnova.

According to the notification, the RCN and Gassnova will be responsible for funding of different stages in the R&D process. More exactly, the RCN will, in general, provide funding for fundamental research activities as well as the major part of activities which can be classified as industrial research. Gassnova, on the other hand, will provide funding for certain industrial research activities as well as precompetitive development activities. However, it cannot, according to the notification, be ruled out that Gassnova, in particular cases, may also provide funding for fundamental research activities. Thus, all R&D stages are referred to in the notification.

The Norwegian authorities have provided examples of projects falling under the different research stages. According to the notification, an example of a project qualified as industrial research is development and laboratory scale testing of ceramic membrane modules for Advanced Zero Emission Power reactors. An example of a precompetitive development project is a pilot plant for membrane-based exhaust gas separation of CO<sub>2</sub> from Combined Cycle Gas Turbine plants. Finally, an example of a feasibility study is a study of a value chain encompassing pre and post power generation CO<sub>2</sub>-separation, transportation and application in enhanced oil recovery projects offshore.

## 2.9 Aid intensities

According to the notification, the aid intensity will be matched with the character of the R&D. Accordingly, fundamental research may be funded up to 100 % of the eligible costs<sup>9</sup>, industrial research may be funded up to 50 % of the eligible costs, and

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<sup>9</sup> The maximum of 100 % may only be granted if a wide dissemination of the results of the research is guaranteed, cf. paragraph (4) of Section 14.5.1 of the R&D Guidelines.

precompetitive development may be funded up to 25 % of the eligible costs. In addition, feasibility studies preparatory to industrial research may be funded up to 75 % of the study costs whereas such studies may be funded up to 50 % of the study costs if they are preparatory to precompetitive development.

Several bonuses will be applicable. Firstly, up to an extra 10 % may be granted to SMEs<sup>10</sup>. Furthermore, research activities funded by Gassnova may be in accordance with the programme “Capture and sequestration of CO<sub>2</sub>, associated with cleaner fossil fuel plants”, Section 6.1.3.2.4 of the sixth Framework Programme of European Community activities in the field of R&D (2002-2006), and may thus obtain a bonus of 15 %, or of 25 % if cross-border cooperation is involved. Moreover, for R&D activities located in a region eligible under Article 61(3)(a) of the EEA Agreement, which according to the notification is not likely, a bonus of 10 % is applicable, whereas the bonus will be of 5 % for activities located in a region eligible under Article 61(3)(c).

The maximum gross intensity will be 75 % for industrial research and 50 % for precompetitive development activities.

## **2.10 Incentive effect**

The Norwegian authorities have committed themselves to ensuring that aid to undertakings other than SMEs will only be granted under the scheme if it, after an assessment by Gassnova of the specific project, can be concluded that the R&D would not be performed in the absence of aid. The guidelines for the scheme include provisions stating that the incentive effect of the aid must be ensured, and they also state how this effect shall be documented by an applicant for aid under the scheme. It is, *i.a.*, stated in the guidelines that the aid must be a triggering factor for the R&D, or that the aid must contribute towards expanding the scope of research or speeding it up. This must be documented by the aid applicant in the project description when applying for aid under the scheme.

## **2.11 Cumulation**

The Norwegian authorities have committed themselves to ensuring that funding under the programme will be coordinated with other aid schemes and that the maximum aid ceilings under Chapter 14.5 of the R&D Guidelines will not be exceeded. This is also expressed in the guidelines of the scheme.

## **2.12 Notification of large individual grants**

According to the guidelines of the scheme, any individual research project costing more than Euro 25 million and for which it is proposed to provide aid with a gross grant equivalent of more than Euro 5 million will require prior notification to the Authority.

## **II. APPRECIATION**

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<sup>10</sup> Norwegian authorities have confirmed that the bonuses will only be granted to SMEs within the meaning of the EEA state aid rules.

## 1. The existence of aid

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”.*

The Norwegian authorities stated in the notification of the scheme that even though Gassnova will, in general, dedicate its budget to precompetitive development activity, it cannot be ruled out that earlier stages of research, such as fundamental research, might be covered in particular cases. Furthermore, although the core group of recipients under the scheme will be larger undertakings, it cannot be excluded that aid may, occasionally, be granted to higher education or research establishments. The Authority would like to point out, in this regard, that if support should be granted to fund fundamental research that is normally carried out by public, non-profit making higher education or research establishments, this aid will not constitute state aid within the meaning of Article 61(1) of the EEA Agreement.<sup>11</sup>

However, as far as aid under the scheme is granted to undertakings, the scheme falls under Article 61(1) of the EEA Agreement. The notified aid is being funded by State resources in the form of budget allocations and will favour certain undertakings by relieving them of R&D costs that they would normally have to bear themselves. Consequently, the aid strengthens the position of the beneficiaries in relation to their actual or potential competitors in the EEA. Furthermore, the aid has a potentially distorting effect on competition within the EEA, as there, according to the notification, are other R&D programmes in Europe focusing on technologies for capture and storage of carbon dioxide, and other undertakings in the EEA are active in the development of such technologies. The markets concerned by the R&D are to a large extent international, and as it cannot be excluded that the aid may affect trade within the EEA, the scheme constitutes State aid in the meaning of Article 61(1) of the EEA Agreement.

## 2. Notification requirement and standstill clause

Article 1(3) in Part I of Protocol 3 to the Surveillance and Court Agreement states: *“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.”* Aid provided without notification or aid that is notified late, i.e. notified after being *“put into effect”* is considered unlawful aid.

The Norwegian authorities have notified the scheme to the Authority before putting it into effect. Therefore, the Norwegian authorities have fulfilled their obligation according to Article 1(3) in Part I of Protocol 3 to the Surveillance and Court Agreement.

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<sup>11</sup> Cf. paragraph (2) of Section 14.5.1 of the R&D Guidelines.

### 3. Compatibility assessment

#### 3.1 Application of the R&D Guidelines

The Authority has assessed the notified aid scheme according to Article 61(3)(c) of the EEA Agreement and in light of the R&D Guidelines. 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 interest of the Contracting Parties to the EEA Agreement, as compatible with the EEA Agreement. Aid granted for R&D activities is assessed under Chapter 14 of the Authority's State Aid Guidelines.

The Norwegian authorities have, in the notification of the scheme, emphasized that the energy supply in the EEA is, and for the foreseeable future will be, dominated by fossil energy sources which involve CO<sub>2</sub> emissions. On the basis of these emissions' harmfulness in the context of global climate change, there is a need for R&D that focuses on improving the environmental performance of fossil energy sources. Today, European R&D programmes concerning technologies for capture and storage of carbon dioxide already exist. However, these programmes tend to focus mainly on coal-fired power stations. According to Norwegian authorities, there is thus a need for funding of R&D as regards gas-fired power stations with carbon dioxide capture and storage. Funding of such R&D will be beneficiary for European industry, *i.a.* by contributing to increased security of supply and by yielding synergies and facilitating other natural gas business opportunities.

#### 3.2 Eligible costs

The investments that may constitute eligible costs under the scheme correspond to the eligible costs defined in Section 14.6 of the R&D Guidelines.

#### 3.3 R&D stages

The R&D activities funded under the scheme will, as a general rule, constitute precompetitive development activities. However, as it cannot be ruled out that the scheme may also, occasionally, fund R&D that must be qualified as fundamental or industrial research, the R&D stages notified comprise all the research stages described under Section 14.2.1 of the R&D Guidelines. Furthermore, technical feasibility studies preparatory to industrial research activities and precompetitive development activities will be funded under the scheme.

The Authority would like to emphasise that no aid can be granted under the scheme to activities that go beyond precompetitive development activities. Hence, commercial activities cannot be funded under the scheme. The Norwegian authorities have mentioned, as an example of precompetitive development activities that may be subject to funding under the scheme, a pilot plant for membrane-based exhaust gas separation of CO<sub>2</sub> from Combined Cycle Gas Turbine plants. The Authority understands that when such a plant starts operating as a commercial player in the market, the activity is no longer considered as precompetitive development activity, and the plant is not eligible for aid under the scheme.



### 3.4 Aid intensities

The aid intensities under the scheme are in accordance with the aid intensities set out in the R&D Guidelines.

The gross aid intensities of 100 % for fundamental research<sup>12</sup>, 50 % for industrial research and 25 % for precompetitive development are in accordance with paragraphs (3), (5) and (7) of Section 14.5.1 of the R&D Guidelines. Furthermore, the gross aid intensities for feasibility studies, 75 % for feasibility studies preparatory to industrial research activities and 50 % for feasibility studies preparatory to precompetitive development activities, correspond to paragraph (6) of Section 14.5.1 of the R&D Guidelines.

The Norwegian authorities have assured the Authority that if a R&D project which is funded under the scheme covers both industrial research and precompetitive development activities, Gassnova, as the body administrating the scheme, will guarantee that the aid intensity for the precompetitive development activities of the project does not exceed the maximum aid intensity of 25 % allowed in paragraph (7) of Section 14.5.1 of the R&D Guidelines.<sup>13</sup> Furthermore, should it be impossible to separate the different research stages of a programme, the level of aid intensity applied for the programme as a whole will be the maximum aid intensity for precompetitive development.

The Norwegian authorities have committed themselves to ensuring that in the case of state aid for an R&D project carried out in collaboration between public research establishments and enterprises, the combined aid deriving from direct support for a specific research project and, where they constitute aid, contributions from public research establishments to that project may not exceed the aid ceilings mentioned in Section 14.5.1 of the R&D Guidelines.

The following bonuses are applicable to the scheme and in accordance with Section 14.5.3 of the R&D Guidelines:

- In accordance with paragraph (1) of Section 14.5.3 of the R&D Guidelines, a bonus of maximum 10 % is applicable to aid for industrial research, precompetitive development or feasibility studies undertaken by SMEs.
- If the funded R&D activities are located in a region eligible for aid under Article 61(3)(a), which according to the notification is not likely, a bonus of 10 % will be applicable. Should the R&D activities be located in a 61(3)(c) region, a bonus of 5 % will be applicable. These bonuses correspond to the bonuses set out in paragraph (1) of Section 14.5.3 of the R&D Guidelines.
- Furthermore, research projects that are in accordance with the objective of the programme “Capture and sequestration of CO<sub>2</sub>, associated with cleaner fossil fuel plants”, Section 6.1.3.2.4 of the sixth framework programme of European Community activities in the field of research and technological development (2002-2006) will, in conformity with paragraph (3) of Section 14.5.3 of the R&D

<sup>12</sup> In such a case a wide dissemination of the results of the research must be guaranteed, cf. paragraph (4) of Section 14.5.1 of the R&D Guidelines.

<sup>13</sup> Cf. paragraph (5) of Section 14.5.2 of the R&D Guidelines.

Guidelines, qualify for a bonus of 15 %. This bonus may rise to 25 %, in accordance with paragraph (4) of the same Section, where the project involves effective cross-border cooperation between firms and public research bodies or between at least two independent partners in two states which are parties to the EEA Agreement and where its results are widely disseminated and published.

- The Norwegian authorities have committed themselves to ensuring that the gross maximum aid intensity, all bonuses included, does not exceed 75 % for industrial research and 50 % for precompetitive development activities. This is in accordance with the maximum aid intensities in paragraph (7) of Section 14.5.3 of the R&D Guidelines.

### **3.5 Incentive effect**

State aid for R&D should, according to paragraph (1) of Section 14.7 of the R&D Guidelines, serve as an incentive for firms to undertake R&D activities in addition to their normal day-to-day operations. As far as SMEs are concerned, the Authority may assume that the aid provides a necessary incentive for the R&D activities.<sup>14</sup> As regards other undertakings, the Norwegian authorities have committed themselves to ensuring that aid will only be granted under the scheme if it, after an assessment by Gassnova of the specific project, can be concluded that the R&D would not be performed in the absence of aid. Furthermore, the guidelines for the scheme include provisions stating that the incentive effect of the aid must be ensured, and also how this effect shall be documented by the applicant for aid under the scheme.

### **3.6 Cumulation**

The Norwegian authorities have committed themselves to ensuring that the funding under the programme will be coordinated with other aid schemes and that the aid ceilings will not be exceeded. This is also expressed in the guidelines of the scheme.

### **3.7 Notification of large individual grants**

According to the guidelines of the scheme, any individual research project costing more than Euro 25 million and for which it is proposed to provide aid with a gross grant equivalent of more than Euro 5 million will, in conformity with paragraph (8) of Section 14.4 of the R&D Guidelines, require prior notification to the Authority.

## **4. Conclusion**

The Authority concludes that the notified scheme for strengthening R&D concerning gas technologies with improved environmental performance (Gassnova) constitutes state aid within the meaning of Article 61(1) of the EEA Agreement, but does not raise doubts as to

<sup>14</sup> Cf. paragraph (4) of Section 14.7 of the R&D Guidelines. This Section refers to Chapter 10 of the R&D Guidelines. However, this Chapter has been deleted, and the definition of SMEs can now be found in Annex I to the Block Exemption Regulation on aid to SMEs, Commission Regulation (EC) No. 70/2001 of 12 January 2001, published in Official Journal L 10, 13.01.2001, pages 33-42. The regulation is incorporated in the EEA Agreement by reference in point 1f in of Annex XV to the EEA Agreement. The substance of the definition remains the same.

the compatibility with the EEA Agreement. The Authority has accordingly decided that the aid is compatible with Article 61(3)(c) of the EEA Agreement read in conjunction with the R&D Guidelines.

The Norwegian authorities are reminded that they must provide the Authority with a report on the implementation of the aid annually and that any changes in the modalities of the scheme have to be notified.

HAS ADOPTED THIS DECISION:

1. The Authority has decided not to raise objections to the notified scheme for strengthening research and development concerning gas technologies with improved environmental performance (Gassnova).
2. This decision is addressed to the Kingdom of Norway.
3. This decision is authentic in the English language.

Done at Brussels, 30 November 2005

For the EFTA Surveillance Authority

Einar M. Bull  
President

Kurt Jäger  
College Member