Natural-gas-fired power plant in Eemshaven

Review advice on the environmental impact assessment

19 November 2009 / report number 2140-90

1. VERDICT ON THE MER (EIA)

Eemsmond Energie BV intends to develop a new natural-gas-fired CCGT (steam and gas turbine) plant in the Eemshaven. This power plant will generate a net 1,300 MWe at maximum capacity, with a minimum output of 57%. The plant is designed to meet the growing demand for electricity and to replace some of the obsolete production capacity in the Netherlands.[1]

A permit in accordance with the Dutch Environmental Protection Act is being requested for this power plant from the Groningen provincial authorities. Additional permits are also being requested from the Netherlands Ministry of Transport, Public Works and Water Management in relation to the Dutch Pollution of Surface Waters Act and the Dutch Water Management Act. An MER (Environmental Impact Assessment) has been compiled to facilitate a decision on this proposal[2]. A Suitability Assessment has been drawn up for the permit request relating to the Dutch Nature Conservation Act and is appended to the MER.

1.1 Appraisal of the MER

The MER Commission (hereinafter referred to as the Commission) is of the opinion that **the essential information** required for a decision is **present**.

The MER and the Suitability Assessment are of a high quality. The summary is very readable. The maps and charts are clear. The environmental impacts of the different alternatives and their variants are clearly stated.

The Commission notes that the MER appears to include the so-called H-class gas turbine as an alternative.
At the moment, in CCGT-plant terms, so-called F-class gas turbines are considered BAT. The H-class is a new generation of gas turbine that is more efficient, with a lower environmental impact. This technology has barely been used in practice and has not therefore proven itself economically or technically. Nevertheless, the initiator has taken account of the fact that he would opt for this over the course of this project. It is for this reason that both alternatives (F- and H-class and their various corresponding options) were included in the MER in addition to the preferred option and the most ecological alternative.
The MER presents the F-class (with a 65-metre chimney and a supplementary package of noise reduction measures) as the preferred option. The initiator has now definitely opted for the H-class in the request for the Dutch Environmental Protection Act permit.

[1] The MER (EIA) covers in great detail the purpose and necessity of the gas-fired plant at this site.
2 For the composition of the MER (EIA) Commission working group, its modus operandi and other project data, please refer to Appendix 1 of this notice. Where digital copies of project data and corresponding documents are available, these can be viewed under *adviezen* at www.commissiemer.nl.

1.2 Outcome of the MER

From the MER's environmental impact descriptions, both alternatives appear to comply with the current limits for air quality[3], noise, external safety and water discharge criteria[4].

There is some uncertainty in the assessment of effects on nature. The Suitability Assessment establishes at which locations the greatest impacts can be expected on the basis of an increase in nitrogen deposition, and how sensitive Natura-2000 areas are to atmospheric deposition. These are Schiermonnikoog and Fochteloërveen. It was considered whether adverse effects could be expected to the natural characteristics of these areas. The assumption is that if no adverse effects are anticipated here, then negative impacts should also not be expected in any other relevant Natura-2000 areas[5]. The Suitability Assessment indicates an extremely limited increase in deposition levels for Schiermonnikoog and Fochteloërveen, and that the effect of this is negated by the margin of error of ecological models and is totally insignificant when compared to annual fluctuations in background deposition. On this basis it has been concluded that no significant consequences are to be expected.

The Commission is of the opinion that the Suitability Assessment contains proper and detailed information about atmospheric deposition, and that tests for compliance with conservation objectives are replicatable. However, for this reason, the Commission thinks that – insofar as critical deposition levels are already being exceeded in these areas, and that present habitat conservation is far from optimal – it is not possible to rule out entirely that the natural characteristics of Natura-2000 areas that are sensitive to atmospheric deposition may be adversely affected[6].

- **The Commission recommends including the results of the Suitability Assessment in the assessment relating to the Dutch Nature Conservation Act.**

[3] In contrast to LTO Noord's view, the Commission is of the opinion (appendix 2, under 6) that immissions to land have also been adequately portrayed. The Commission refers to appendix 10 to the MER. The emission of particles is monitored. Immissions are calculated using a distribution model.

4 Contrary to the view stated by the Milieufederatie Groningen (appendix 2, under 7), the various environmental impacts have also been assessed on a cumulative basis. Section 5.2 (assessment method) states this approach in as many words: "Any cumulative effects are described in the impact assessment".

5 According to the Commission, this provides a response to the stated view of the Ameland municipal authorities (appendix 2, under 1).

6 The Milieufederatie Groningen notes in its view (appendix 2, under 7) that, for habitats in a poor state of preservation that are subject to a restoration task, even the slightest deterioration through deposition is significant.

APPENDIX 1: Project data for review under the Environmental Impact Assessment Decree

Initiator: Advanced Power AG

Competent authority: Directorate-General for Public Works and Water Management of the Minister of Transport, Public Works and Water Management and the Provincial Executive of Groningen (coordinating)

Decision: Permits pursuant to the Environmental Protection Act, Pollution of Surface Waters Act and Water Management Act

Category under Amended Environmental Impact Assessment Decree 1994: C 22.1

Activity: Constructing a natural-gas-fired power plant

Procedural data:
Announcement of start of procedure in Staatscourant No. 137 of 25 July 2008
Request for advice with the MER Commission: 15 July 2008
Open for public inspection: 28 July 2008 to 8 September 2008 inclusive
Guideline advice issued: 3 October 2008
Guidelines finalized: October 2008
MER notification in Staatscourant No. 12777 of 28 August 2009
MER open for public inspection: 31 August 2009 to 12 October 2009 inclusive
Request for review advice with the MER Commission: 20 August 2009
Review advice issued: 19 November 2009

Composition of the working group:
The Commission sets up a working group for each project, consisting of several experts, a chairman and a working group secretary. The composition of the working group for the present project is:

V.J. van den Broek (secretary)
H.S. Buijtenhek
Prof. F.W. Saris (chairman)
H.E.M. Stassen
R.L. Vogel

Commission's modus operandi during review:
During the review the Commission looks at whether the MER contains sufficient correct information in order to give full weight to the environmental interests in the decision-making process. The Commission takes as its basis during the review the legal requirements for the contents of an MER, as stipulated in Article 7.10 of the Environmental Protection Act and the guidelines laid down for the MER. If information is missing, insufficient or incorrect, the Commission assesses whether it considers this to be a material shortcoming. This is the case when additional information can, in the Commission's view, result in other considerations. In such cases the Commission's advice is for the missing information still to be made available, before the decision is taken. Comments about non-material shortcomings in the MER are included in the review advice, where they can be formulated into clear recommendations for the competent authority. The Commission's advice is therefore geared to principal points which are important for the decision-making process, and it does not go into incorrect or incomplete aspects which are of subsidiary importance.
For further information about the Commission's modus operandi, see the *Commissie m.e.r* page at www.commissiemer.nl.

Relevant documents:
The Commission has taken note of the views and advice which it received from the competent authority. This advice refers to a response when this highlights new insights about specific local environmental circumstances or alternatives to be examined. A summary of the views and advice is included in Appendix 2.

APPENDIX 2: List of views and advice

1. Municipality of Ameland, Ameland
2. City of Emden
3. Groningen Regional Fire Service
4. Dipl. Ing. agr. J. Smid
5. Norton Rose Solicitors, on behalf of RWE Power AG
6. LTO Noord (Agriculture and Horticulture Organization North), Drachten branch
7. Groningen Environmental Federation
8. German Federal Water and Shipping Administration, North-West Directorate
9. Rural district of Leer
10. German Nature and Biodiversity Conservation Union (NABU)

Minutes of information evening on 8 September 2009 in Oosteinde

Review advice on the environmental impact assessment for the Natural-Gas-Fired Power Plant in Eemshaven

Eemsmond Energie BV intends to develop a new natural-gas-fired power plant in Eemshaven. An environmental impact assessment (MER) has been drawn up for the decision-making process concerning the permits needed for this. The Commission for the environmental impact assessment indicates in this review advice whether this MER contains the information needed for the decision-making process.

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