

Ministry of the Environment of the Republic of Estonia

Estonia's National Allocation Plan for 2008-2012

translation

Tallinn
September 2011

Estonia's National Allocation Plan for 2008-2012 has been prepared by the Ministry of the Environment in accordance with Annex III to Directive 2003/87/EC and the guidance documents of the European Commission.

Contents

Introduction	4
1. Determination of the total quantity of allowances.....	4
1.1. Consistency with Kyoto commitments	4
1.2. Consistency with national projections of greenhouse gas emissions	5
1.3. Technological potential to reduce emissions	5
1.3.1. Use of renewable energy sources	6
1.3.2. Increasing the efficiency of production processes	6
1.3.3. Import of electricity.....	7
1.4. Consistency with legislation	7
1.5. Total quantity of allowances	7
1.5.1 Selection of methodology	7
1.5.2. Total quantity of allowances	9
2. Determination of the quantity of allowances at installation level	9
2.1. General methodology	9
2.2. Exemptions.....	10
2.3. Pooling between the installations	10
2.4. New entrant reserve	10
2.5. Joint implementation reserve	11
2.6. Percentage of project-based units	12
2.7 Modification of NAP table concerning allocation already made for 2010 allowances	12
3. Involvement of the Public	12
4. Compliance of the NAP with the criteria of the European Commission.....	12
Annex 1 Table of installations included in the National Allocation Plan for 2008-2012.....	14
Annex 2 Joint implementation reserve of the National Allocation Plan for 2008-2012	14

Introduction

Pursuant to Article 9 of the Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (hereinafter *Directive 2003/87/EC*), Estonia submitted, on 30 June 2006, to the European Commission for approval the National Allocation Plan (hereinafter *NAP*). On 4 May 2007, the European Commission published the decision on the NAP, reducing the total quantity of Estonia's allowances by 47.8 %, to 12.7 million tonnes per year. Based on the Decision of the European Commission, the Government of the Republic adopted, on 20 December 2007, the Regulation no. 257 on "Total Allowance of Greenhouse Gases Emitted by Stationary Sources of Pollution and Allocation Plan Thereof for 2008-2012", which was used to implement the European Union Emission Trading Scheme in Estonia during 2008-2009. On 16 July 2007, Estonia contested the decision in the Court of First Instance of the European Communities. The Court agreed to Estonia's positions and annulled the Commission Decision of 4 May 2007 in its judgment of 23 September 2009.

On 11 December 2009, the Commission took a new decision, rejecting the Estonia's NAP of 30 June 2006. On 8 February 2011 Estonia submitted revised NAP to the Commission for approval. On 29 April 2011 Commission rejected Estonia's NAP submitted on 8 February 2011.

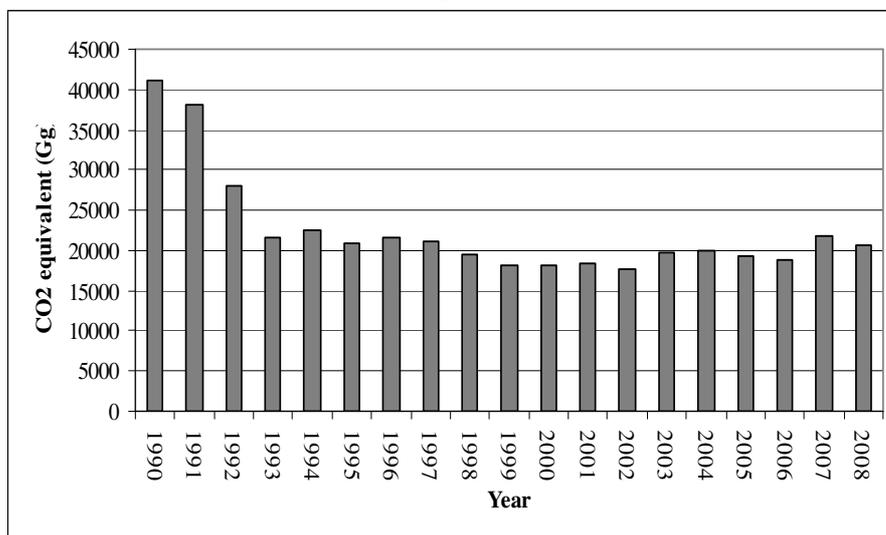
Hereby, Estonia submits to the European Commission the National Allocation Plan for 2008-2012. The NAP has been prepared using a transparent methodology, it is justified and complies with the criteria specified in the guidelines for preparation of national allocation plans (Communications COM(2003) 830 final and COM(2005) 703 final). According to the submitted NAP, the average annual emission allowances, incl. reserves, during the period 2008-2012 amount to **13 301 720 t of CO₂eq**. This calculation is based on the latest verified emission data.

1. Determination of the total quantity of allowances

1.1. Consistency with Kyoto commitments

Pursuant to the Kyoto Protocol, Estonia is required to reduce greenhouse gas emissions by 8 % as compared to 1990 level during the period 2008-2012. According to the National Inventory Report on greenhouse gas emissions in Estonia, submitted to the UNFCCC secretariat in April 2010, Estonia's emission level in 1990 was 40.8m t of CO₂eq, with 36m t coming from CO₂ emissions. In 2008, the emissions of greenhouse gases amounted to 20.3m t of CO₂eq, constituting 50 % of the 1990 level (see Figure 1). This indicates that Estonia has significantly exceeded the Kyoto commitment in reducing the emission of greenhouse gases.

Figure 1. Time series of Estonia's greenhouse gas emissions



Source: Estonian National Inventory Report 2010, Ministry of the Environment

Estonia's verified emissions in the framework of the EU Emission Trading Scheme (hereinafter *EU ETS*) amounted, on average, to 76.5 % of the national CO₂ emissions and to 66 % of national greenhouse gas emissions in the period 2005-2008. The average total emission allowances of 13.3 million t for the period 2008-2012, as specified in the NAP, complies with the national commitments under the Kyoto Protocol.

The verified emissions of the EU ETS are currently not included in the inventory of greenhouse gases and, consequently, it is impossible to report or project the share of the emissions of the EU ETS in the sectors of the greenhouse gas inventory.

Estonia does not intend to purchase Kyoto units from the market to achieve the Kyoto target.

1.2. Consistency with national projections of greenhouse gas emissions

According to the national projections of greenhouse gas emissions, submitted on 15 March 2011 by the Ministry of the Environment to the European Commission pursuant to Decision 280/2004/EC of the European Parliament and of the Council, Estonia's greenhouse gas emissions in 2010, with existing policies and measures, amount to 20.4 m t of CO₂eq. The average total emission allowances of 13.3 million t for the period 2008-2012, as specified in the NAP, complies with the national projections of greenhouse gas emissions.

1.3. Technological potential to reduce emissions

When providing an overview of the potential to reduce emissions in Estonia, it would not be

practical to consider the carbon intensity of GDP in Estonia as a whole, but to look at individual sectors, which have installations belonging to the EU ETS. In the case of Estonia, it is possible to distinguish the following sectors:

- electricity generation, incl. cogeneration of heat and electricity;
- heat generation;
- industry.

Emissions could be reduced in all of them through use of renewable energy sources and streamlining of the production process. Opportunities for reducing the emissions of greenhouse gases from electricity and heat generation include reduction of network losses during transmission and distribution and encouraging sustainable energy consumption. Actions to achieve these objectives are described in the “National Development Plan of the Energy Sector until 2020”, approved by the parliament in June 2009. The emissions from electricity generation can also be avoided by importing electricity.

1.3.1. Use of renewable energy sources

On the use of renewable energy sources for generation of electricity, Estonia has been guided by the target of increasing the level of renewable energy sources to 5.1 % of Estonian electricity consumption by the year 2010, in accordance with Directive 2001/77/EC. While this share was only 0.7 % in Estonia in 2004, renewable energy sources accounted for 6.2 % of the energy consumed in 2009. This was achieved through the use of biomass for cogeneration of heat and electricity and through increased generation of wind energy.

Commissioning of combined heat and power plants that use biomass has also increased the level of heat generation from biomass. In the next years, the use of renewable energy sources will be extended to heat generation in boiler stations, which are not included in the EU ETS. Due to the nature of the production processes, the use of renewable energy sources cannot be significantly increased in Estonian industrial plants, which are included in the EU ETS.

1.3.2. Increasing the efficiency of production processes

The opportunities for increasing the efficiency of production processes should be considered separately by individual installations. The majority of Estonian installations, which are included in the EU ETS, are in a good technical condition and any short-term modifications would not be feasible in technical and economic terms.

The operators of largest installations, AS Narva Elektriijaamad and AS Kunda Nordic Cement, have the best opportunities for increasing the efficiency of production processes in Estonia. The required investments in these companies are extremely large and require a long period of preparation, which could be over five years. The planned investments in the installations of AS Narva Elektriijaamad will ensure compliance with the commitment, arising from the

Treaty of Accession of Estonia to the European Union, to modernise the oil shale blocks of the power stations by 2016, but these investments will not affect the emissions of AS Narva Elektriijaamad in this trading period.

Increasing cogeneration of heat and power is another opportunity to increase the efficiency of production processes. Four large combined heat and power plants will be built during the current trading period (Tallinn CHP and Iru waste incineration plant, Anne CHP, Pärnu CHP), with a total capacity of just below 100 MWe1, whereas Tallinn CHP and Iru incineration plant will replace the current Iru CHP of Eesti Energia AS. Any further increase in cogeneration of heat and power will be limited by the size of Estonia's heating market. As most of the generated heat is used in buildings, the opportunities for expanding the cogeneration of heat and power are not particularly good.

1.3.3. Import of electricity

The emissions from Estonian electricity generators, which are part of the EU ETS, could be reduced by increasing the import of electricity to Estonia. Indeed, Estonia has used this opportunity, particularly in 2008 and 2009 when the net import of electricity from Lithuania was 1207 and 2305 GWh, respectively (the average net import during the period 2005-2007 was 56 GWh). However, there is a shortage of electricity in the Baltic electricity market, following the closing of the Ignalina power plant. Estonia is the only Baltic country that exports electricity; during the summer of 2010, Lithuania imported up to 70 % and Latvia approximately 40 % of the electricity consumed.

According to the goals of the “National Development Plan of the Energy Sector until 2020”, Estonia wants to ensure existence of national electricity generation capacity in the power system at any given moment. Following this principle, Estonia is not planning to import electricity or to increase the dependence of electricity generators on fuels imported from third countries (this prevents, e.g., conversion of power plants into gas plants, as there is only one supplier of gas to Estonia).

1.4. Consistency with legislation

NAP's consistency with national and EU legislation has been analysed and no restrictions have been found to take into account during the drafting of the NAP.

The NAP complies with national and EU law.

1.5. Total quantity of allowances

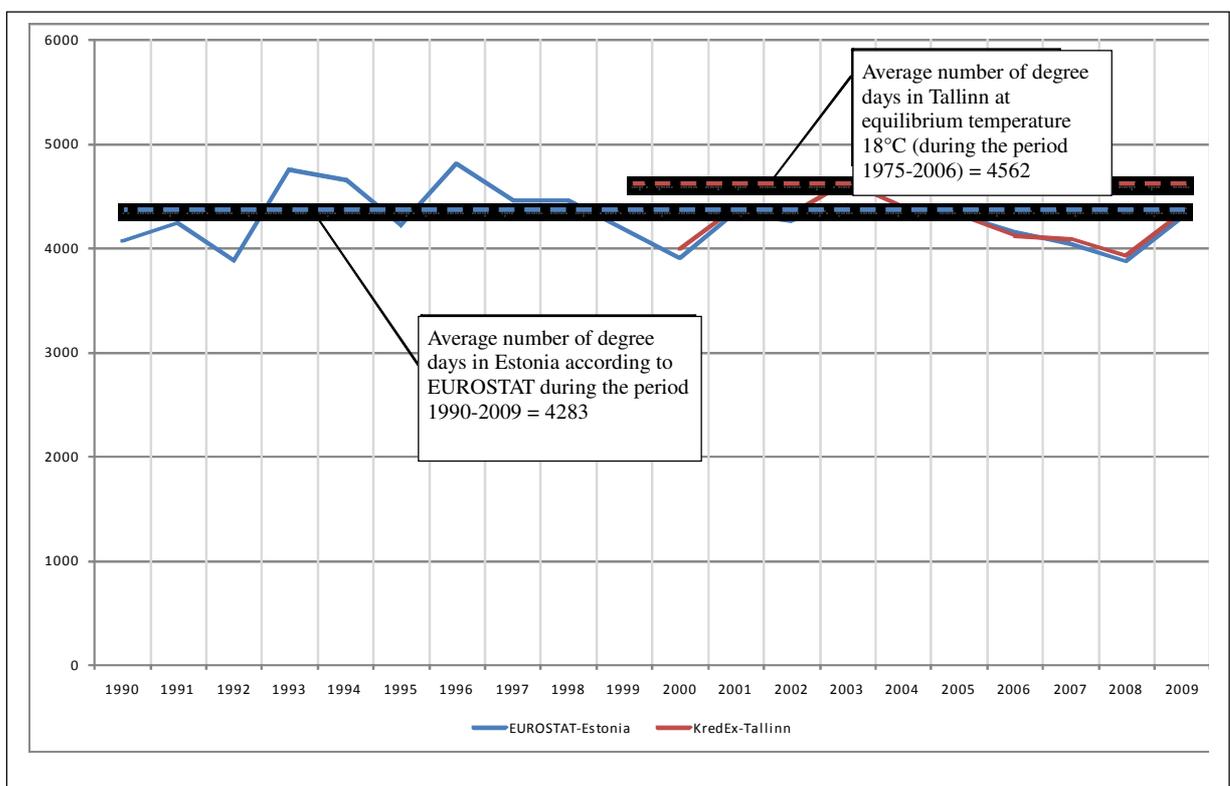
1.5.1 Selection of methodology

Estonia has used the average verified emissions from the period 2005-2010 as the basis of allocation. The figure of verified emissions of only one year cannot be used as source of reliable data. As stated in clause 85 of the judgment of the Court of First Instance, the best data available should be used. The verified emissions of the period 2005-2010 are currently available and they clearly indicate that there can be significant differences, due to various reasons, in the verified quantities between different years. In the following, we provide explanations why the use of the average verified emissions from the period 2005-2010 results in the most objective assessment of the quantities of emissions from installations and, consequently, also Estonia's total quantity of allowances.

It could be mentioned, on the one hand, that the time series of verified emissions has been influenced by the economic growth of the period 2005-2007 and the economic recession that started in 2008.

On the other hand, in Estonia, the EU ETS includes many heat generators and, in their case, greenhouse gas emissions are not significantly affected by economic growth or recession. The ambient temperature during the winter is the main factor influencing the emissions from their installations. The energy demand for heating is characterised by degree days, the annual variations in degree days in Estonia are presented on Figure 2. The following chart illustrates the annual variation of degree days in Estonia.

Figure 2. Annual variation of degree days in Estonia



Sources: EUROSTAT, Kredex

Based on the above considerations, the best way to assess and project the emissions from such installations would be to use the verified emissions over a longer period of time, based on the latest available data. That is why allowances for heat producers in the national allocation plan were calculated according to the average verified emissions from the period 2005-2010.

The potential for reducing emissions at installation level is described in section 2.1.

1.5.2. Total quantity of allowances

The average total quantity of allowances allocated for the period 2008-2012, incl. new entrant reserve, is **13 301 720 t of CO₂eq.**

The principles of allocating emission allowances, described in Chapter 2, ensures compliance of the total quantity of the allowances of the country with the criteria specified in Annex III to Directive 2003/87/EC.

2. Determination of the quantity of allowances at installation level

In the case of 45 installations, the quantity of EUAs is determined according to the general methodology, i.e., based on average verified emissions from the period 2005-2010. For installations that were not included in EU ETS during the whole period of 2005-2010 (Peetri katlamaja, Põlva keskkatlamaja, AS Nitrofert lämmastikühendite tootmise tehas, Termoili terminal), emission data from ambient air emission reports was used for the years when installations were not included in ETS when applying general methodology. For installations that started working after 2005 (AS Viisnurk katlamaja, Trendgate terminal, Vesta Termaalõli katlamaja, AS Estonian Cell Haavapuidumassi tehas) the quantity of EUAs is calculated using verified emissions from the years when these installations have been working. The general methodology cannot be applied to two installations and the principles of allocating EUAs to them are described in section 2.2.

The purpose of the methodology of allocating EUAs, used in the NAP, is to ensure equal treatment of installations to a maximum extent possible.

According to the NAP, all EUAs are allocated to installations free of charge, without auctions.

2.1. General methodology

According to the general methodology, EUAs will be allocated to installations during the

period 2010-2012 on the basis of average verified emissions in the period 2005-2010. The verified emissions in the period 2005-2010 are reliable source data for projecting the EUAs for the period 2010-2012, because the emissions from that period reflect the impact of both, economic growth and recession. The use of verified emissions in the period 2005-2010 complies with the Commission recommendation to use verified emissions data from recent years for preparing the NAP. In the Commission Decision of 29 April 2011 (points 7 and 9) it is clearly stated that the verified emissions for 2010 are the most recent and reliable data available. Estonia has taken this suggestion into account and included verified emissions of 2010 in the methodology as described above. There has been a significant variability in verified emissions during this period, from a minimum of 10.322m t in 2009 to a maximum of 15.33m t in 2007. The Balti and Eesti power plants account for 76 % of the variability over those years, with other installations being accountable for the remaining 24 %. Impartially verified data on the six-year period constitute the best available information, which can be used to project the EUAs for the majority of installations.

The NAP includes 47 installations in total and the general methodology is applied to 45 of those installations.

This principle covers the potential to reduce emissions, because the installations, when increasing their production volumes, have to consider that they only have free EUAs in the extent corresponding to the average verified emissions in the period 2005-2010. Consequently, the national total quantity of emissions of 13.3 million t during the period 2008-2012 will push the installations towards using better technologies, if these are available.

2.2. Exemptions

The general methodology could not be applied to the allocation of EUAs to two installations - AS Repo Vabrikud katlamaja and Sangla Turvas AS katlamaja. These small installations (whose share of total allowances allocated to installations is negligible - 0.38%) have implemented measures to reduce emissions during the trading period and verified emissions of 2006 were used to calculate allocation for these installations.

2.3. Pooling between the installations

No operator has submitted an application for pooling to the Ministry of the Environment.

2.4. New entrant reserve

The new entrant reserve during the trading period amounts to **3 465 285 t of CO₂eq** in total. Calculation for the reserve is based on all expansions of the operation of an installations and new installations that will be added to the EU ETS during 2008-2012.

The EUAs in the new entrant reserve will be allocated free of charge in the order of receipt of applications for a greenhouse gas permits until the reserve is exhausted. The principles of allocating the reserve are specified in section 119¹ of the Ambient Air Protection Act. EUAs from the new entrant reserve will be allocated to those new entrants to the EU ETS, who hold an ambient air pollution permit or an integrated environmental permit and who have submitted a relevant application for a greenhouse gas permit by the time of adoption of the national reserve allocation plan.

The new entrants, who apply for a greenhouse gas permit for the first time, will be allocated EUAs proportionally with the quantity of EUAs they applied for, but not exceeding in each particular instance the quantity of greenhouse gas emissions, which would be generated in a similar installation using the best available techniques.

The evaluations of installation projections and allocations of EUAs from the reserve will be based on the use of the best available techniques and use of energy sources with lower greenhouse gas emissions. After the reserve is exhausted, the installations within the scope of Directive 2003/87/EC will purchase the number of EUAs, equivalent to verified emissions and required for surrendering, from the carbon market.

If an installation is closed, the EUAs that remained unallocated to that installation will be transferred to the new entrant reserve. Any allowances remaining in the reserve will be cancelled at the end of the trading period.

2.5. Joint implementation reserve

The NAP includes a joint implementation reserve of **991 172 t of CO₂eq**. The joint implementation reserve (Annex 2) has been designed and prepared in accordance with Commission Decision 2006/780/EC. The reserve is established on the basis of greenhouse gas emission reductions from seven wind farms and one hydropower plant. The respective quantities were derived from Project Determination Reports and, if available, annual verification reports. All projects in the reserve have been issued Letters of Approval, and cause double counting in the EU ETS.

Pursuant to Commission Decision 2006/780/EC, the number of EUAs, equivalent with the joint implementation reserve, shall be deducted from the number of EUAs of electricity generators. The number of EUAs, equivalent with the joint implementation reserve, will be deducted from the EUAs of the Eesti and Balti power plants; the contribution of smaller electricity generators is considered insignificant for the purposes of avoiding the double counting. If possible, a number of EUAs, equivalent with the number of EUAs not used by the projects at the end of the trading period, will be transferred to the accounts of the two aforementioned power plants.

No additional reserve has been set apart for new joint implementation projects. In the future,

developers of new projects can only implement joint implementation projects, which do not fall under the scope of Decision 2006/80/EC (do not cause double counting in the EU ETS). Establishment of new wind farms or hydropower plants as joint implementation projects is not possible during this trading period.

2.6. Percentage of project-based units

Installations in the EU ETS (including new entrants) may use units of project-based flexible mechanisms (Clean Development Mechanism and Joint Implementation) for surrendering transactions conducted by April 30 for the years 2011 and 2012. Each installation may use up to 10 % of such units in relation to allowances allocated for free for the years 2011 and 2012. If an installation uses less than 10 % for 2011, it may use the remainder for 2012.

2.7 Modification of NAP table concerning allocation already made for 2010 allowances

Allocation for 2011 (and if necessary 2012) will be modified to take into account allocation already made for 2010 so that total allocation for 2008-2012 remains as it is presented in NAP. Installations that received more allowances for 2010 than foreseen in NAP will have respective amount of allowances deducted from their allocation for 2011 and installations that received less allowances for 2010 than presented in NAP will receive complement number of allowances for 2010 in 2011. If the allocation for 2011 does not cover the deduction, allocation for 2012 will also be reduced respectively.

3. Involvement of the Public

NAP was published for comments during 4-11 August 2011. Eight operators submitted comments regarding different aspects of NAP:

1. Three operators asked for clarifications regarding different aspects of NAP and all questions were answered.
2. Five installations submitted comments where asked for implementation of different methodology when calculating EUAs for their installations. Proposal from one installation was taken into account and proposals from four installations were rejected.

4. Compliance of the NAP with the criteria of the European Commission

Compliance of the NAP with the criteria specified in Annex III of the Directive 2003/87/EC is demonstrated in Table 2.

Table 2. Compliance of the NAP with the mandatory criteria of the European Commission

Criterion	Corresponding section in the NAP
Consistency with Kyoto commitments	Section 1.1.
Assessment of projections of greenhouse gas emissions	Section 1.2.
Potential to reduce emissions	Sections 1.3. and 2.1.
Consistency with legislation	Section 2.1.
Equal treatment of installations	Chapter 2
Involvement of the public	Chapter 3
Table of installations	Annex 1
Percentage of project-based units	Section 2.6.

Annex 1 Table of installations included in the National Allocation Plan for 2008-2012

The table of installations is appended as a separate PDF file: Annex1_NAP_2008-2012_installations.pdf

Annex 2 Joint implementation reserve of the National Allocation Plan for 2008-2012

The table of the joint implementation reserve is appended as a separate PDF file: Annex2_NAP_2008-2012_JI.pdf