Evaluation of the Baltic Sea Region Testing Ground Facility

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Preface

Countries in the Baltic Sea Region are participating in the global efforts for combat climate change, within the framework of the UN Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol, through the Testing Ground for international co-operation in the use of the Kyoto Mechanisms. As part of this co-operation, the Testing Ground Facility (TGF) was established in December 2003 to implement Joint Implementation (JI) projects in the region and to disseminate knowledge on JI.

In the Action Plan for Nordic Energy Co-operation 2006-2009, the following was stated: “An evaluation of the Testing Ground Facility’s (TGF) operations, including recommendations for changes, is to be made, in conjunction with the second phase of the EU quota trading system. The need to further develop the Testing Ground Agreement (TGA), including the co-operation with the other Baltic Sea countries on capacity building in the area, will be evaluated.”

In their meeting in September 2006, the Nordic Ministers further agreed that progress within the TGF and TGA should be continued to gain concrete experiences in the Kyoto mechanisms.

In line with these decisions, the Nordic Council of Ministers has appointed GreenStream Network Ltd. to carry out an evaluation of the Baltic Sea Region Testing Ground Facility (TGF). This evaluation contributes to the learning and capacity building process embedded in the TGF objectives.

The evaluation is based on a review of publicly available information on the TGF as well as information and insights gathered through stakeholder interviews, including TGF staff at the Nordic Environment Finance Corporation (NEFCO) and representatives of investors and organisations that have co-operated with TGF.

The main contributors to this evaluation are Mr Aleksi Lumijärvi (Project Manager) and Ms Hanna-Mari Ahonen (Consultant). GSN’s local representative in Lithuania, Mr Andrius Tamosiunas, also contributed to the report by conducting interviews with Lithuanian stakeholders.

The Climate Change Policy Working Group does not necessarily share the views and conclusions of the report, but looks at it as a contribution to our knowledge about TGF in the Baltic Sea Region.

Oslo, November 2007

Jon Dahl Engebretsen

Chairman of the Climate Change Working Group

Summary

The Baltic Sea Region Testing Ground Facility (TGF) has evolved into a well-functioning fund, which operates in a challenging market. Synergies between NEFCO and TGF are exploited extensively, and investors are generally satisfied with the TGF project portfolio. After a period of active capacity building, TGF must now turn its attention to finalizing the portfolio and implementing projects.

1. Background

1.1. Evaluation of the Testing Ground Facility (TGF)

This evaluation consists of three tasks (see Table 1), and the report is structured accordingly. In Chapter 2, the operations and results of the TGF are evaluated mainly based on publicly available documentation and interviews with TGF staff at NEFCO. Interviews with the main stakeholders of the TGF were carried out in order to receive in-depth information, opinions and experiences from different stakeholders on the functioning of the TGF. The results of these interviews are reported in Chapter 3. Finally, in Chapter 4, conclusions on the current functioning and results of the TGF on the other hand and recommendations for its further development on the other hand are presented.

Table 1 Structure of the evaluation

Task 1. Evaluation of the operations and results of the TGF (Chapter 2)
Task 1 is primarily carried out as a review of publicly available documents complemented with discussions with NEFCO's staff. The task focuses on facts and figures, and consists of the following sub-tasks: Decisions and agreements regarding, and objectives of the TGF; Operations of the TGF; Development of the carbon market; and Results of the TGF.
Task 2. Stakeholder interviews (Chapter 3)
In total, 15 interviews were carried out to gather in-depth information and insights on the TGF from the following stakeholders (number of people interviewed in brackets): Nefco's staff (2); public / private members of the Investors' Committee (6 / 2); private investors not in the Investors' Committee (1); JI authorities / project developers of host countries (2 / 1); and representatives of organisations co-purchasing with TGF (1)
Task 3. Conclusions and recommendations (Chapter 4)

1.2 Policy context

The United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol, adopted in 1992 and 1997 respectively, form the current framework for global policy to combat human-induced climate change. The Kyoto Protocol assigns binding targets to limit greenhouse gas (GHG) emissions in industrialised countries for the period 2008-2012. Countries may transfer and acquire GHG units through the market-based Kyoto Mechanisms established by the Protocol. One such mechanism is Joint Implementation (JI) which offers a frame-

work for trading Emission Reduction Units (ERUs) generated by projects that reduce emissions in industrialised countries. Emission reductions that take place prior to the year 2008 may be traded as Assigned Amount Units (AAUs) under International Emissions Trading (IET) pursuant to Article 17 of the Kyoto Protocol. The third Kyoto Mechanism – the Clean Development Mechanism (CDM) – governs the crediting of emission reduction projects in developing countries.

In November 2002, the Ministers of Energy of the Baltic Sea Region (BSR) met in Vilnius and decided to establish the Testing Ground for international co-operation in the use of the Kyoto Mechanisms as part of the Baltic Sea Region Energy Co-operation (BASREC).

In September 2003, the governments of the countries in the Baltic Sea Region concluded the Agreement on a Testing Ground for Application of the Kyoto Mechanisms on Energy Projects in the Baltic Sea Region, commonly referred to as the Testing Ground Agreement (TGA). The TGA established a regional Testing Ground for Joint Implementation to gain experience from and facilitate the use of JI, and to implement JI projects in order to reduce GHG emissions cost-effectively. The countries participating in Testing Ground Co-operation are Denmark, Estonia, Finland, Germany, Iceland, Latvia, Lithuania, Norway, Poland, Russia and Sweden.

The market for CDM and JI credits has experienced rapid growth in recent years, particularly following the entry into force of the Kyoto Protocol in February 2005 and the gradual operationalisation of the international framework for CDM and JI. Furthermore, the EU Emissions Trading Scheme (EU ETS) has stimulated significant private sector demand for CDM credits since its launch in January 2005. The EU ETS imposes limits on carbon dioxide (CO₂) emissions of some 12 000 installations, which are allowed restricted use of JI and CDM credits for compliance.

1.3. Introducing the Testing Ground Facility

As part of Testing Ground Co-operation, the Baltic Sea Region Testing Ground Facility (TGF) was established in December 2003 for the implementation of JI projects in the Testing Ground. The background of TGF is discussed in more details in a forthcoming report by ECON (2007). The purpose of the TGF is to provide economic resources for and disseminate knowledge on JI projects, and to assist in achieving the objectives of the Testing Ground (see Table 1).

The TGF is a regional, open trust fund structured as a Public-Private Partnership (PPP) between governments and private sector utilities and industrial companies in the Baltic Sea Region. The TGF is an instrument for implementing JI projects in the BSR and purchasing AAUs and ERUs from energy sector and other projects on behalf of its investors. Public

investors may use these units to comply with their national Kyoto targets, and private sector investors may use ERUs towards meeting installation-level emission obligations under the EU ETS.

The first round of subscriptions was open to BASREC governments and ran from September to December 2003. Initially, the five Nordic countries contributed a total of €10 million. Germany soon followed with an additional €5 million. The second subscription, launched in November 2005, was primarily directed towards private entities, although founding investors also had the opportunity to increase their investment. Following the closure of the second subscription in March 2006, nine private sector investors joined the TGF and Finland raised its investment, bringing the fund's capital to its current level of €35 million.

The six public TGF investors are:

- Kingdom of Denmark*
- Republic of Finland*
- Federal Republic of Germany*
- Republic of Iceland*
- Kingdom of Norway*
- Kingdom of Sweden*

The nine private TGF investors are:

- DONG Naturgas A/S, Denmark*
- Fortum Power and Heat Oy, Finland*
- Gasum Oy, Finland
- Keravan Energia Oy, Finland
- Kymppivoima Tuotanto Oy, Finland
- Outokumpu Oyj, Finland
- Vapo Oy, Finland*
- Vattenfall Europe Berlin AG & Co. KG, Germany*
- Vattenfall Europe Generation AG & Co. KG, Germany*

The asterisk indicates member of the Investors' Committee (IC).

The Nordic Environment Finance Corporation (NEFCO) is the Fund Manager and manages the TGF in accordance with the TGA, Operating Guidelines and guidance from the investors. NEFCO is an international financial institution with wide experience in financing environmental and energy projects in the potential host countries in the region.

The TGF is supervised by the Investors' Committee, which comprises of one member from each founding investor (six participating governments) and the Fund Manager. In addition, new private sector investors that have contributed at least €2 million may also nominate a member to the IC. Other investors may attend the IC meetings as observers.

2. Evaluation of the operations and results of the TGF

2.1 Decisions and agreements regarding, and objectives of the TGF

This section provides the starting point of the evaluation, describing the objectives against which the operations and results of the TGF will be evaluated. This section is based on a review of relevant background documents and decisions and complemented with information collected through stakeholder interviews.

2.1.1. Decisions and agreements relevant to the TGF

The creation of Baltic Sea Region Energy Co-operation in 1999, and consequent BASREC meetings, paved way for a concrete framework for JI co-operation in the Baltic Sea Region – the Testing Ground for the Kyoto Mechanisms. In Vilnius in 2002, Energy Ministers welcomed the progress in implementing the Testing Ground and called for its operationalisation as early as possible in 2003, recognising that “establishing the Testing Ground ... at an early stage will deliver the necessary contributions to demonstrate the opportunities of Joint Implementation activities in the BSR, to promote capacity building and to enhance common understanding of the Kyoto mechanisms, their implementation and application” (BASREC 2002, p. 7).

The Baltic Sea Region Testing Ground was created in September 2003 through the adoption of the Testing Ground Agreement (TGA) (BASREC 2003), establishing a common framework for the implementation of JI projects in the region, in order to reduce GHG emissions cost-effectively. With the exception of Russia, all BASREC countries have signed the TGA. The TGA entered into force in the beginning of 2004.

The TGF is governed by the Testing Ground Agreement, the Baltic Sea Region Testing Ground Facility Operating Guidelines (NEFCO 2003) and the additional Rules of Procedure established by the Investors' Committee (NEFCO 2006).

2.1.2. Objectives and scope of Testing Ground Co-operation and the TGF

The objectives governing the TGF are listed in Table 2. Objectives of Testing Ground Co-operation are laid down in Article 3 of the TGA. The comprehensive objectives cover all aspects of JI, ranging from compe-

tence building and development of methods and procedures to addressing barriers and ensuring the issuance and transfer of JI credits. The underlying aim is to reduce GHG emissions cost-effectively. Emphasis is placed on the realisation of high-quality JI projects in the energy sector, and early implementation is encouraged. The active involvement of both public and private entities was envisaged from the outset, and confirmed in the TGA.

Under the TGA, parties agreed “to work together to build capacity and competence to facilitate co-operation e.g. through workshops, seminars and conferences”, noting that the BASREC JI handbook “has been developed as a contribution to common understanding of JI concepts, the JI project cycle and to capacity building.” Parties are encouraged to share information and exchange views and experiences on “institutional matters, methodology, administrative and financial barriers as well as transaction costs for JI projects” on an annual basis.

Table 2. Objectives of Testing Ground Co-operation and the TGF

Objectives of Testing Ground Co-operation are:

- to build capacity and competence to use the Kyoto Mechanisms and promote common understanding of concepts, rules and guidelines for use of the flexible mechanisms of the Kyoto Protocol, to promote the realisation of high quality projects in the energy sector generating emission reductions;
- to gain experience with the Joint Implementation (JI) mechanism under the Kyoto Protocol in the energy sector, especially with projects in the fields of energy saving, energy efficiency, fuel switching in combination with energy efficiency or saving, and renewable energy resources;
- to develop methods and procedures in conformity with the rules and guidelines of the Kyoto Protocol with a view to ensuring the environmental integrity of projects;
- to collaborate in addressing administrative and financial barriers, and the level of transaction costs, especially regarding small-scale JI projects;
- to facilitate generation, ensure issuance and transfer of ERUs and AAUs related to or accruing from JI projects and Emissions Trading; and
- to implement projects early and offer credit for emission reductions prior to 2008.

The purpose of the Testing Ground Facility is:

- to provide economic resources for Joint Implementation projects, primarily in the energy sector;
- to disseminate the knowledge gained in respect of Joint Implementation projects through the activities of the TGF; and
- to assist in achieving the objectives of the Testing Ground (see above).

The TGA states that the TGF is being established to “foster and contribute to the implementation of JI projects and to fulfil the objectives of this [TGA] agreement”. The TGF’s purpose is further defined in Section III of the Operating Guidelines: (1) to finance JI projects; (2) to disseminate information; and (3) to assist in meeting Testing Ground objectives.

There have been no changes in these general objectives over time. However, a noteworthy change in the geographic scope of TGF activities took place in 2006, when TGF host country eligibility was extended to Ukraine. Initially, JI projects implemented within the Testing Ground framework were to be carried out in the Baltic Sea Region, which covers Denmark, Estonia, Finland, Germany, Iceland, Latvia, Lithuania, Norway, Poland, Russia and Sweden (Article 5 of the TGA).

There has also been a general shift in focus: from testing and learning in early years to more commercially oriented acquisition of cost-effective credits in recent years, especially since private investors came on board. Also, emphasis has gradually moved from implementing small-scale projects to involvement in larger projects, reflecting the increased capital of the fund and the opportunities to engage in co-purchasing.

2.2. Operations of the TGF

This section describes the operating principles, criteria and procedures as they have been laid down at the outset and put into practice by TGF staff at NEFCO.

The structure of this section includes the following issues:

- General operating principles;
- Staffing and other resources;
- Organisation, roles and responsibilities;
- Relationship and co-operation within NEFCO;
- Decision-making process;
- Project identification and origination process and methods;
- Involvement in project development and JI project cycle;
- Contract negotiations and closing;
- Payment and delivery procedures of ERUs and AAUs;
- Planned use of carbon credits;
- Information dissemination and capacity building activities; and
- Co-operation with different organisations.

The operations of the TGF are governed by the Operating Guidelines (OG) and the supplementary Rules of Procedure (RoP), which are effectively a compilation of Investors' Committee's decisions relevant to the operations of the TGF.

Information on the stated operating principles and procedures is based on the public versions of the OG (NEFCO 2003) and the RoP (NEFCO 2006), provided by TGF staff, and the TGF Operational Review 2006 (NEFCO 2007) and the BASREC JI Handbook (BASREC 2007) and other resources available at the TGF website.¹ Further information on the operations is based on interviews, discussions and other communication with TGF staff.² Relevant information gathered through stakeholder interviews is also used.

¹ TGF website at <<http://www.nefco.fi/page.asp?headerid=70&subid=71&lang=eng>>

² Meeting on 27.6.2007 with Mr Ash Sharma and Ms Janika Blom; Phone interview on 3.7.2007 with Mr Sharma; interview on 22.8.2007 with Ms Blom; Numerous e-mail communications during June and August 2007.

2.2.1. General operating principles

Section IV of the Operating Guidelines deals with the operation of the TGF. It stipulates that the TGF shall finance JI projects in return for the transfer of ERUs or AAUs prior to, during and after the period 2008-2012. TGF seeks to facilitate the processes of determination, monitoring and verification, as well as the effective allocation of credits according to the needs of investors. The Fund Manager – NEFCO – enters into associated agreements on behalf of the TGF.

The Fund Manager identifies project proposals in collaboration with the investors, host countries and other relevant parties. From these proposals, the Fund Manager selects potential projects that meet Project Selection Criteria and contribute to meeting the Project Portfolio Criteria, and presents them to the Investors' Committee for approval.

TGF seeks to comply with all relevant requirements under the Kyoto Protocol and other pertaining regulations. Contractual arrangements are to be structured flexibly so as to maximise the likelihood of achieving TGF's objectives under the incomplete and evolving regulatory framework of the Kyoto Protocol.

2.2.2. Staffing and other resources

Compared with many other carbon funds, TGF is a leaner programme and managed by a smaller – albeit well-networked – organisation. Over time, NEFCO has allocated resources to the TGF commensurate with the scale and timing of the TGF's expansion. While TGF's capital more than doubled from €15 million to the current €35 million, TGF staff has increased from approximately one to five person-year equivalents. TGF staff relies heavily on NEFCO's administrative and other resources and also makes extensive use of external resources and networks.

From its establishment in late 2003 until mid-2005, parallel to negotiations on the details of the TGF among investor countries, the TGF operated without specific allocated resources. For much of 2004, NEFCO staff developed the TGF project pipeline alongside NEFCO's own pipeline development and other activities.

The operationalisation of the TGF gained new momentum with the appointment of a full-time Programme Manager in June 2005 and a full-time Legal Counsel in spring 2006 to manage accelerated project portfolio development and the expansion of TGF to include private sector investors.

Currently, NEFCO employs approximately five person-year equivalents for TGF: the Helsinki-based Programme Manager and Legal Counsel ("TGF staff"), two full-time local representatives in Ukraine and one person-year equivalent of additional human resources to assist in technical and environmental due diligence, financial and project management, and origination. The plan to recruit a local representative also in Russia

was abandoned due to lack of suitable candidates. Given NEFCO's long-standing presence and good networks in Russia, the need for a local representative was not considered pressing. By contrast, NEFCO's limited experience in Ukraine warranted the prompt appointment of two local representatives.

In addition to dedicated staff, NEFCO provides TGF with administrative and institutional resources, project evaluation capacity and procedures, financing opportunities and NEFCO's own project pipeline, contacts and networks. As an international financing institution, NEFCO provides a range of financing options, including loans, equity and access to multilateral and bilateral grants. The TGF relies heavily on these resources.

Various non-NEFCO resources are also utilised by TGF. Investors bring to the table their own experience, capacity and networks, and make important contributions to the evaluation and development of project proposals and to the general evolution of the operating framework. In case of co-purchases, there are mutual benefits involved in sharing the risks and burdens of project development as well as relevant experience and contacts, making such projects less resource-intensive for individual buyers.

The TGF makes use of (mostly local) experts and institutions in host countries. Such co-operation offers mutual benefits: local contacts are often cost-effective and make operation smoother in the host countries, and collaboration with TGF strengthens local capacity and promotes information dissemination.

The TGF also collaborates closely with the Nordic Investment Bank (NIB); projects entering the NIB's pipeline are now routinely screened for JI potential and NIB's networks are readily available to the Fund Manager. The level of awareness on JI issues is relatively good at NIB, not least because the former Managing Director and an early actor in the establishment of TGF at NEFCO now heads the Russia/Ukraine department at NIB.

2.2.3. Organisation, roles and responsibilities

The Operating Guidelines specify the division of roles and responsibilities of the Investors' Committee (IC) and the Fund Manager, NEFCO. By subscribing to the TGF, public investors authorize the Fund Manager to act on their behalf in actions leading to the generation, transfer or acquisition of ERUs and approve projects as JI projects.

The division of roles within TGF is relatively clear-cut: the Investors' Committee is responsible for strategic guidance and project approval, while NEFCO takes care of implementation, including project portfolio development, associated contracting and information dissemination. Detailed lists of the powers and duties of the IC and NEFCO, as contained in

the Operating Guidelines, are presented in Table 3. Over time, the roles and responsibilities have been fine-tuned via IC decisions and documented to some extent in the Rules of Procedure. The tendency has been to avoid and move away from micromanagement, with the aim of striking a balance between IC control and contribution, and NEFCO's freedom to carry out its tasks effectively.

Investors' Committee

The IC usually meets four times a year, with an invitation and agenda provided at least 14 days before the meeting. The IC is responsible for developing and reviewing the operations and strategies of the TGF and the criteria for projects, and for approving project proposals, guarantees for advance payments, and the Fund Manager's entry into service contracts that exceed the threshold value. Ideally, the IC leaves project-level details to TGF staff, and focuses on general parameters and strategic guidelines. In practice, the IC does consider project-specific issues in detail from time to time, whenever deemed necessary by the investors.

The IC serves as a forum for sharing JI-related views and experience, and for developing and harmonising the underlying policy framework in the investor countries.

Table 3 Powers and duties of the Investors' Committee and NEFCO

Powers and duties of the Investors' Committee are:
<ul style="list-style-type: none"> - reviewing TGF operations to provide the Fund Manager with general policy and strategic guidance on the operations of the TGF; - reviewing project proposals presented by the Fund Manager in order to consider whether the project is eligible for support and investment finance from the TGF; and approving projects that meet Project Selection Criteria; - making amendments to the Project Selection Criteria or the Project Portfolio Criteria; - deciding on inviting new investors to participate in the TGF; - reviewing and approving TGF's business plan and annual budget for each fiscal year; - approving the Fund Manager to enter into contracts for determination and verification; - authorizing relevant expenditures which exceed the total annual budget by more than 10 % of that previously approved by the investors for the fiscal year in question; - arranging for the preparation of a summary on good practices and lessons learned from the development and operation of the TGF as warranted; - approving Rules of Procedure for the Investors' Committee; and - taking any other action provided for under the Operating Guidelines.
Powers and duties of the Fund Manager:
<ul style="list-style-type: none"> - managing TGF Property for the benefit of the Investors in line with the Operating Guidelines, keeping it separate from the assets of NEFCO (possibility to commingle it for investment purposes with other assets); - employing or contracting resources, entering into joint ventures and partnerships etc. as it considers appropriate, acting on the guidance of the Investors' Committee; - incurring and paying necessary costs without separate IC approval, as long as such costs do not exceed the total annual budget for the TGF by more than 10 % than that previously approved by the investors; - performing acts and entering into contracts as necessary; and - engaging parties to act as registrar, transfer agent and/or custodian on behalf of the TGF in respect of TGF Property, agreements evidencing entitlement to ERUs and AAUs, or other interests of the TGF or the Investors, on such terms and conditions as the Fund Manager may determine, acting on the guidance of the Investors' Committee.

Fund Manager

The Operating Guidelines assign to NEFCO the duty to manage TGF property for the benefit of the investors. To perform this task, NEFCO is given the (somewhat restricted) power to employ resources, cover costs, enter into service contracts and partnerships and perform other acts as it deems necessary. NEFCO may negotiate and conclude Option Agreements (OAs) and Emission Reductions Purchase Agreements (ERPAs), provided that the project has received IC approval.

NEFCO may contract consultants to perform project-related tasks, such as project identification, preparation of project documentation, and determination. These contracts initially required separate IC approval, but currently IC approval is not required for Project Design Document (PDD) / business plan contracts or determination unless the associated costs exceed a threshold value. To date, the threshold values, introduced in December 2005, have not been exceeded. Other service contracts require case-by-case approval. Such external costs are covered by specially allocated technical assistance (TA) funding, amounting to up to 5 % of TGF capital, as specified in the Operating Guidelines.

2.2.4. Relationship and co-operation within NEFCO

Roles within TGF staff

The Programme Manager is responsible for general coordination and management of TGF, investor relations, marketing, project origination, evaluation and project management. The Legal Counsel is responsible for contractual and institutional issues, and participates in project management. Two full-time staff look after project origination and coordination in Ukraine, and a technical advisor works on technical issues part-time.

Co-operation within NEFCO

TGF staff is based at NEFCO's office in Helsinki, and relies heavily on NEFCO's environmental, financial and administrative support. The common location and small size of NEFCO enable continuous and integrated co-operation between TGF staff and NEFCO's in-house experts throughout the project cycle. NEFCO's experience, networks and contacts in eligible host countries are also extensively utilised by TGF. NEFCO has a long-standing presence, well-established networks and a good reputation in North-Western Russia and the Baltic States. NEFCO's experience in Poland and Ukraine is more limited.

The involvement of NEFCO experts varies across projects and increases with project maturity. All TGF proposals undergo NEFCO's environmental and technical screening, and explore financing opportunities offered by NEFCO. NEFCO staff may also carry out reviews of project documentation, further evaluation of projects and site visits.

NEFCO is specialised in financing of environmental projects, which gives rise to obvious synergistic opportunities for developing JI projects. Thus, financing co-operation is especially close; approximately one third of the projects in TGF's portfolio receive financing from NEFCO.

In parallel, JI considerations have been integrated into NEFCO's operations; all NEFCO's projects are now routinely screened for JI potential, investment managers have been trained on JI issues, and TGF staff often participates in NEFCO's outreach missions to potential host countries as sponsor and speaker.

The current JI-related co-operation within NEFCO is the result of conscious and systematic awareness building, which took place in the early stages of TGF in order to realise and maximise the synergies between TGF and NEFCO's other operations. The current high level of awareness within NEFCO was achieved relatively quickly due to the small size of the organisation.

2.2.5. Decision-making process

Based on general parameters established by the Investors' Committee, TGF staff selects projects to be presented to the IC for approval. While TGF is its own legal personality, distinct from NEFCO and independent in its decision-making, TGF staff follows NEFCO principles for screening projects and making decisions. The TGF Programme Manager makes decisions based on discussions with TGF and NEFCO staff and other experts.

The Investors' Committee is responsible for making decisions on project approval and other strategic issues. The two-stage IC project approval consists of preliminary approval to conclude Option Agreement and to support project development; and final approval to conclude the Emission Reductions Purchase Agreement and to support project implementation. In addition to project-related decisions, the IC makes decisions on general strategic parameters and deals with policy-related issues, seeking to accommodate the sometimes differing views and requirements of the investors.

According to the Operating Guidelines, decision-making is based on single majority voting³, with each IC member (excluding the Fund Manager) present at the meeting having one vote. In practice, however, decision-making is typically consensus-driven and voting rarely takes place.

Decisions may be made at IC meetings or through a written procedure (per capsulam). Provisions for a written procedure were laid down already in the OG, and it is being increasingly applied to decision-making as the project pipeline has matured and contracting has been picking up. As with meetings, invitation and agenda must be circulated to all inves-

³ With the exception of decisions to amend project selection and portfolio criteria and to invite investors; these need to be approved unanimously.

tors 14 days in advance, and single majority support is required (or unanimous approval where applicable) for per capsulam decision-making.

2.2.6. Project identification and origination: process and methods

The TGA calls for a focus on energy-related projects, especially in the fields of energy saving, energy efficiency, fuel switching in combination with energy efficiency or saving, and renewable energy sources. However, other project types have also been eligible under the TGF from the start. Initially, projects were to be originated from the Baltic Sea Region. In 2006, the geographic scope was extended to include Ukraine, in response to the narrowing JI potential in the Baltic States and Poland due to the EU ETS and the lack of a JI framework in Russia at the time.

TGF's projects are identified and screened by TGF staff at NEFCO against Project Selection and Portfolio Criteria (see Table 4), as contained in the Operating Guidelines, drawing on NEFCO's procedures and resources. In short, the TGF portfolio should consist of a balanced selection of cost-effective, Kyoto-eligible projects that are replicable and viable, implemented by competent developers, and supported by the host country. The overarching aim of the screening process is the identification and assessment of risks. The distribution of these risks between NEFCO and the seller are agreed as part of the ERPA negotiations.

Table 4 Project Selection and Portfolio Criteria

Project Selection Criteria
<ul style="list-style-type: none"> - compatibility with host country's environmental and other priorities - consistency with host country's Kyoto rules and criteria - achievement of strategic objectives and operational principles of the Testing Ground (TG, as set forth in TGA) - proven and replicable technology; commercially available and demonstrated; subject to customary commercial performance guarantees; reasonable potential for replication in TG region - Competence (technical and institutional) of project owner to manage and operate project (if needed, through the provision of adequate technical assistance) - Viability (economic and financial) of project (established in the course of project appraisal) - Eligibility under the Kyoto Protocol, especially additionality (project and project cycle; guided by JI handbook) - Predictability of timing of emission reductions - Reduction of transaction costs
Project Portfolio Criteria
<ul style="list-style-type: none"> - High level of cost-effectiveness - preference (to a reasonable extent) to energy sector project - payment mostly against delivery (unless advance payment considered appropriate) - reasonable balance between investor interests - reasonable regional distribution among interested potential host countries, with due account taken of their respective potentials

The TGF accepts and seeks project ideas on a continuous basis, although special calls have occasionally been made to attract project developers' attention. TGF does not engage in public procurement tenders involving strict application criteria and deadlines. TGF staff identifies potential

projects through several channels, including NEFCO's own pipeline of relatively small environmental projects, and NEFCO's outreach missions, contacts and networks, NIB's pipeline of larger projects, TGF investors, and local consultants and networks. For example, the energy efficiency centres in North-West Russia have successfully identified projects for the TGF. Project developers and consultants also approach TGF directly with project ideas, after hearing about TGF through the TGF website, JI-related events or articles.

TGF staff makes extensive use of NEFCO's project evaluation procedures, checklists, risk management tools, and NEFCO expertise on project evaluation. Projects identified through NEFCO's pipeline need to meet also NEFCO's criteria, including the demonstration of the environmental, technical, institutional, economical and financial feasibility of the project. NEFCO requires projects to meet reasonable profitability criteria but, this having been established, focuses more on the environmental effects.

All TGF projects undergo NEFCO's technical and environmental screening. The evaluation process is gradual and proceeds as more information becomes available; decisions on developing the project idea further are made whenever sufficient information has been received. Attention is paid especially to project design, financing and overall feasibility of the underlying project, and naturally also to the project's eligibility under JI. At least the following aspects of the project are evaluated: certainty and timing of delivery and delivery risks; status of permitting and implementation schedule, including timeframe for equipment supply; past business conduct and technical capacity of the project developer, CVs and reference lists; financial status and balance sheets; historical profits and losses; credit checks and the project's ability to service debt; social and environmental issues; etc. Emission reductions are estimated using approved CDM methodologies whenever possible.

If the project idea is deemed promising and likely to pass the IC screen, the proposal is brought forward to the IC for preliminary approval. Key information on the project idea is circulated to all investors prior to decision-making, giving the investors the opportunity to look at the proposal and discuss it with their own experts and with other investors before deciding on approval. In case any concerns arise, the IC may decide to grant preliminary approval and instruct NEFCO to investigate the issues of concern in more detail as part of the due diligence process. IC input adds value to the evaluation process, enabling TGF to benefit from the diverse experience and expertise of investors while (mostly) avoiding excessive micro-management.

2.2.7. Involvement in project development and JI project cycle

TGF involvement in the project cycle is flexible and responsive, and varies across projects depending on project-specific needs and circumstances. Compared with most other buyers, TGF involvement is often very active and hands-on and begins at a relatively early stage, especially in the Baltic States where TGF is the only major buyer of credits. Most project developers are unfamiliar with JI, so TGF staff tends to be in close contact with them, offering a wide spectrum of support, especially on financial, but also technical, institutional and environmental, issues. In case of co-purchases, TGF involvement varies; costs and responsibilities may be divided evenly or unevenly between the buyers, whatever is agreed. Responsibilities are usually divided in accordance with the relative strengths and capabilities of the buyers.

TGF may provide funding in the form of technical assistance for the project once an Option Agreement has been signed. In practice, it may be necessary to spend time and effort on prospective projects also before the signing of the OA. While this effort sometimes goes to waste, TGF's philosophy emphasises the importance of early trust-building and engagement for getting the project off the ground. Strong emphasis is also placed on developing the relationship into a strong long-term partnership and promoting the companies' understanding of JI issues; co-operation with companies will typically last at least six years. Early involvement imposes risks that typical buyers are not willing to bear – TGF can shoulder higher risks owing to its capacity building and information dissemination mandate. Early engagement can also be considered a risk-management strategy; it allows TGF to have more influence over and better understanding of the project, and more time to undertake comprehensive due diligence. Furthermore, early involvement and risk-sharing is reflected in the lower contract price.

Once the project idea has received a go-ahead from the IC and an Option Agreement has been signed, the due diligence process continues with the support of NEFCO's in-house expertise. Project ideas originating in NEFCO's own pipeline undergo NEFCO's due diligence in any case, which eases the burden of TGF staff and keeps the transaction costs in check. NEFCO pays special attention to the financial viability of project ideas, and at the early stages, the main focus is on helping the project developer to explore and identify suitable sources of financing.

At this stage, TGF may provide technical assistance to support development of the JI component, such as contracting consultants for Project Design Document (PDD) preparation and determination. TA typically does not cover any non-JI components of the project, nor early stage documents such as Project Idea Notes (PIN) or feasibility studies. NEFCO typically contracts local consultants to prepare the PDD, thus supporting capacity building and keeping transaction costs in check. In the untypical case where the project developer has already prepared a

PDD, reimbursement is possible against documented invoices. For determination, NEFCO contracts entities that have been accredited for JI Track 2 procedures.

NEFCO may enter into these contracts without separate IC approval, provided that established threshold values are not exceeded (as, to date, they have not). Technical assistance is typically (in around half of the contracts) considered as an advance payment, to be deducted from the first payments for credits. If TA is provided as grant money, this translates into a corresponding decrease in the contract price for credits, effectively rendering TGF indifferent between the options (although the former is officially preferred).

The project developer is responsible for appropriate monitoring and verification of the project's emission reductions. However, TGF is prepared to provide some technical support and training upon commissioning, if deemed necessary. At the time of writing, no TGF projects have reached monitoring or verification stage, and thus, no practical experience is yet available.

Currently, TGF applies the international Track 2 verification procedures to all of its JI projects. TGF may apply host country –specific Track 1 procedures in the future, once available and if deemed appropriate.

The TGA states that parties “shall undertake the necessary steps for issuance of ERUs and AAUs corresponding to the verified amount of emission reductions” and “ensure the timely transfer of ERUs and AAUs”. This requires the establishment of procedures and institutions in host countries for issuing ERUs and the fulfilment by the host and investor countries of eligibility requirements for transferring ERUs and AAUs. The TGF monitors such developments and discusses relevant issues with host country authorities and internally at IC meetings.

2.2.8. Contract negotiations and closing

TGF staff at NEFCO, especially the Legal Counsel, is responsible for negotiations on the Option Agreement (OA) and the Emission Reductions Purchase Agreement (ERPA), subject to IC approval of the project. NEFCO in its capacity as Fund Manager to the TGF enters into these contracts.

The Operating Guidelines stipulate that the TGF shall seek to maximise the likelihood of Kyoto eligibility by ensuring adequate flexibility in contractual arrangements. For one, TGF is flexible in its terms of payments: the provision of technical assistance and advance payments for credits can increase the likelihood and smoothness of completing the JI cycle. Flexibility is also built into the TGF standard ERPA, for example through the conclusion of conditional ERPAs, the acceptance of substitute emission reductions in case of project failure, the option for purchasing additional credits, and the possibility to apply Track 1 procedures.

The OA contains the commercial conditions, such as the contract price and volume, for the sale and purchase of credits and the period of exclusivity for negotiating the ERPA (usually 12 months, sometimes more). The OA may also contain conditions for technical assistance, for example, the funding of a PDD by NEFCO against agreed milestones.

NEFCO has the mandate to negotiate prices within the acceptable range determined by the IC. This range may be revised in accordance with market development; it had been revised upwards relatively recently, in accordance with market developments. TGF aims to be competitive in the JI market for comparable projects. Besides the prevailing price level, the contract price reflects project-related risks, early involvement, technical assistance and advance payments. The price is agreed in the OA.

The signing of the OA takes place once the project begins to take shape and some feasibility work has been done, rendering TGF staff and the IC reasonably confident about the project's potential. The project's technical design should be fairly advanced at this stage, but the financial and carbon components need not be as advanced. An absolute minimum requirement for signing an OA is a well-developed PIN, including basic financial information, and an initial background check. Typically, the PIN is supplemented with additional financial information and a well thought out plan for implementation before forwarding it to the IC for preliminary approval. Before signing, initial discussions have always taken place and TGF staff has visited the project site. Note that the timing of OA conclusion also depends on the seller's willingness to commit to further negotiations; many Russian project developers have been reluctant to sign OAs in the absence of national JI procedures.

A signed Option Agreement enables the further development of the project under TGF, the provision of technical assistance, and an exclusive negotiation period for an ERPA. Due diligence (conventional and environmental) will continue in parallel to project development, preparation of documentation and contract negotiations, and special attention will be given to any issues or concerns raised by the investors upon preliminary approval.

The project must undergo determination and receive final approval from the IC before an ERPA can be signed between the project developer and NEFCO. Host country approval and final determination are not required for concluding the ERPA, but the contract's final validity is typically subject to achieving these milestones within a specified timeframe.

The ERPA sets out the terms and conditions of payment between NEFCO and the seller. The BASREC JI Handbook contains a standardised ERPA for TGF projects which provides a starting point for negotiations. In case of co-purchases, NEFCO coordinates the terms and conditions with the co-buyer(s) to ensure a smooth and consistent negotiation process.

Besides price and volume, negotiation points include, inter alia, the distribution of responsibilities, costs and risks between NEFCO and the seller; the option to purchase additional credits; the dates and milestones associated with events of default; the types and levels of sanctions and penalties; and conditions for making advance payments (if applicable), including acceptable guarantees and repayment structures. TGF's ERPA is fairly standard and widely distributed. NEFCO aims to be transparent and open about ERPA structure and key terms, so as to promote a smooth and relatively predictable negotiation process.

The ERPA is signed after a positive determination report has been received; the contract volume is set at a conservative level, typically at 80-90 % of the volume contained in the determined PDD. Besides host country approval and final determination, other conditions precedent to the full effectiveness of the ERPA may include financial closure, approval by one investor country or other relevant milestones. The ERPA also contains provisions for terminating the contract if any event of default occurs, for example if the project's implementation is significantly behind schedule, the project fails to be operational or the seller fails to deliver 70 % of the volume due by a specified date.

The negotiation process is often time-consuming; many projects have very long lead times and the conclusion of the ERPA requires several negotiation rounds. The fastest negotiations were concluded within six months, while the longest have dragged on already for over a year and a half, with no signed ERPA to this day. One project took four years to proceed from PIN stage to a signed OA.

2.2.9. Payment and delivery procedures for ERUs and AAUs

The ERPA specifies a fixed price for credits, which may be in the form of AAUs or ERUs.⁴ NEFCO purchases early credit AAUs from four projects in the TGF portfolio; this accounts for less than 1 % of the expected total. NEFCO typically contracts a conservative firm volume with specified minimum annual amounts and a tentative schedule for delivery. The seller delivers all credits to TGF until the total contract volume has been delivered. In case of co-purchases, buyers usually receive their proportionate share of annual volumes. Furthermore, NEFCO typically reserves the option (preferential right) to purchase, at a fixed price, additional emission reductions generated by the project during or after the crediting period.

Payments on deliveries are made on an annual basis. Credits are considered delivered once they have been transferred to the national GHG registry account(s) specified by NEFCO, with the exception of the first

⁴ The standard TGF ERPA also contains provisions for projects that become included in the EU ETS during its crediting period; in this case, if requested by NEFCO, emission reductions generated by the project may be delivered as EUAs.

TGF ERPA where payments were made against a verification report.⁵ The seller bears all costs related to issuance and delivery of credits, including expenses charged by the Joint Implementation Supervisory Committee (JISC).

Technical assistance costs are usually deducted from first payments, or otherwise reflected in the contract price. The OA may contain provisions for reimbursement for any technical assistance in case negotiations do not result in an ERPA between the seller and NEFCO due to seller default. If the project fails to proceed for reasons beyond the seller's control, technical assistance money will be lost.

Advance payments of up to 50 % of contract value are possible against a signed ERPA and appropriate guarantee approved by the IC on a case-by-case basis. Approximately half of the projects in the current TGF portfolio have made (some, not always maximal) use of the advance payment opportunity. Note that the guarantee may be difficult and costly to obtain, and it may make more sense to take out a conventional loan instead of buying a guarantee and opting for the advance payment. Repayment structures vary across projects; sometimes no payments are made until the full advance payment has been received, and in other cases, some fixed or proportional amount is deducted from annual payments.

The ERPA specifies sanctions for non-delivery, and remedies and cures, including the possibility of terminate the agreement, in case of project failure and other events of default. In case the contracted volume has not been delivered by the end of the crediting period or upon termination of the ERPA, the seller must either pay a penalty fee equivalent to the market value of the non-delivery, or deliver substitute emission reductions acceptable to NEFCO. All TGF ERPAs contain sanctions, although the specifics vary across projects. In an attempt to facilitate negotiations, innovative structures have been recently introduced: stricter penalties may apply in cases where the seller wilfully breaches the contract (e.g. by selling generated ERUs to other buyers) whereas more lenient sanctions apply in case the seller fails to deliver the full volume due to under-performance of the project.

2.2.10. Planned use of carbon credits

According to the Operating Guidelines, investors may annually decide from 2008 onwards, to have credits transferred or retained by the TGF; retained credits may be re-sold and revenues re-invested or kept as ERUs/AAs.

In practice, the acquired credits are most likely used by investors for compliance purposes; for Kyoto compliance in case of public investors

⁵ This effectively means that TGF purchases the project's verified emission reductions, regardless of whether these reductions are transferred to the TGF as AAs or ERUs.

and for EU ETS compliance in case of private investors. A limited amount of ERUs may also be banked from one period (2008-2012) to the next, both under the Kyoto Protocol and the EU ETS. Note that early credit AAUs cannot be used by private investors for compliance under the EU ETS.

At the time of writing, the International Transaction Log (ITL), the software required for tracking transfers under the Kyoto Protocol, is not yet functional. Furthermore, criteria and procedures for the issuance and transfer of ERUs and AAUs may vary across host countries, and such details are yet to be specified.

The timely delivery is more critical to private investors, who have to surrender the appropriate amount of EU Allowances (EUAs, including a limited number of ERUs in their place) by March of each year. By contrast, for Kyoto compliance governments only need their credits delivered after the end of the first Kyoto period, in the year 2013.

2.2.11. Information dissemination and capacity building activities

In line with TGF's objectives, TGF staff at NEFCO is actively and extensively involved in a variety of information dissemination and capacity building activities, such as giving presentations at workshops and seminars, writing articles in relevant publications, publishing press releases on TGF developments, and keeping the TGF website up to date.

TGF's early and close involvement in project development promotes capacity building among host country authorities and local project developers, as well as internally within NEFCO and its partners. NEFCO offers support for the Nordic network of equipment suppliers that are interested in new business opportunities in the Baltic Sea Region. Finally, TGF staff at NEFCO has contributed to the preparation and updating of the BASREC JI Handbook, which promotes common understanding of JI concepts, the JI project cycle and capacity building in the Baltic Sea Region.

2.2.12. Co-operation with other organisations

TGF has actively sought co-purchasing opportunities, which enable risk- and cost-sharing and engagement in larger projects. TGF is open to co-operation with private companies, including technology suppliers, as well as to participation in very large investments in consortium with other buyers. Other forms of co-operation include joint missions with NEFCO, collaboration through NEFCO's networks and contacts, contracting of local, Nordic and international consultants, and communications with host country authorities and JISC, all of which also promote profile-building.

2.3. Evolution and status of carbon markets and regulatory framework for JI

2.3.1 Overview of the carbon markets

The market for greenhouse gas (GHG) units has experienced rapid growth in recent years, with transactions amounting to 1.6 Gt or € 22 billion in 2006. The current market is dominated by transactions under the EU ETS, which accounted for 69 % of the volume and 75 % of the value contracted during the first half of 2007 (Point Carbon 2007). The market for CDM credits is the second-largest sub-market, representing 27 % and 23 % of the contracted volume and value in the same period, respectively. Despite considerable interest in JI projects by early movers like the Netherlands' ERU Procurement Tender (ERUPT) in the first years of this decade, the market for JI credits has lagged far behind in size, accounting only for 2 % of the estimated total contracted volumes in the first half of 2007 (Figure 1).

Figure 1 The size of the carbon markets

Source: World Bank 2007; Point Carbon 2007; UNEP/Risoe CDM/JI Pipeline Analysis and Database, 18 July 2007.

Credit prices vary across contracts, depending on project maturity and distribution of risks (Figure 2). At the time of writing, the maximum price for Certified Emission Reductions (CER) of around €16.50 is linked to the EUA December 2008 contract and discounted by 20 % due to the current lack of infrastructure for importing credits. The minimum CER price of €8 corresponds to the floor price for CDM projects in China. JI credits (ERUs) are currently trading at a €1-2 discount in the higher buyer risk categories and at an even greater discount – up to €6 – in the low buyer risk category, reflecting the greater institutional uncertainties and thinner market dominated by public buyers who are less concerned about the EUA price level. Category 4 deals refer to transactions where the seller guarantees a firm delivery and bears all transfer risks; this contract type is rare and observed only in the CDM market.

Figure 2. Price development of CERs in 2007 by project status

Sources: GSN Trading Desk, GTZ CDM Highlights.

Russian JI projects are expected to account for almost half of the ERU supply by 2012 (Figure 3). As for project types, the current pipeline of published JI projects is dominated by methane reductions in terms of volume. Renewable energy projects are the most numerous project type.

Figure 3 Overview of the JI pipeline (as of July 2007)

Source: UNEP/Risoe CDM/JI Pipeline Analysis and Database, 18 July 2007.

2.3.2 Regulatory framework for the Kyoto mechanisms

The international rules for CDM and JI were adopted as part of the so-called Marrakesh Accords in 2001, and they were officially approved by the first Meeting of the Parties to the Kyoto Protocol in December 2005. The regulatory framework for CDM has been under development since the CDM Executive Board was established and started its work in 2001, and the procedures were fully operational by 2005.

By contrast, the operationalisation of the international JI framework did not begin until the JI Supervisory Committee (JISC) was established in December 2005. The international JI Track 2 procedures were launched in October 2006, enabling JI projects to start the determination process under the JISC. Final determination of JI projects is possible once the host country meets minimum eligibility criteria, including, *inter alia*, the appointment of a Designated Focal Point for JI and the publishing of national guidelines for approving JI projects. Of the potential TGF host countries (Baltic States, Poland, Russia and Ukraine), only Ukraine has in place the required framework for enabling JI projects to achieve final determination at the time of writing. The Baltic States are in the process of finalising national procedures and establishing national authorities. Russia published its JI guidelines at the end of May 2007, and is currently in the process of establishing the necessary institutions and operationalising the framework for approving JI projects.

National JI Track 1 procedures may be applied once the host country has achieved full eligibility. These procedures will vary across host countries, and details are not yet available. Track 1 eligibility has not yet been achieved by any country; the first countries may achieve eligibility by the beginning of the year 2008.

2.3.3 Impact of EU ETS on JI potential

The EU ETS imposes caps on the carbon dioxide emissions of some 12 000 energy-intensive installations in the EU Member States from 2005 onwards. The so-called Linking Directive (Directive 2004/101/EC) enables installations to import CERs (from 2005 onwards) and ERUs (from 2008 onwards) into the scheme and use them in place of EU Allowances (EUAs) for compliance.

The Linking Directive sets provisions for avoiding double counting in determination of emission reductions within the EU. If JI projects reduce emissions of EU ETS installations directly, an equal amount of EUAs must be cancelled by the operators of those installations. If JI projects reduce emissions of EU ETS installations indirectly, an equal amount of EUAs must be cancelled from the national registry of the Member State. These provisions considerably reduce the potential for JI in EU Member States.

Member States hosting JI projects that could cause double-counting should establish two set-asides in their national allocation plans for such projects. The first set-aside is for already approved projects and the second for planned projects. These set-asides list the projects and their anticipated emissions reduction.

Under the EU ETS, the remaining JI potential is determined by set-asides and opportunities to reduce emissions in the non-trading sector. As the potential in first set-aside is earmarked for already approved projects and the second set-aside also consist of projects that have been somehow identified, potential for new projects effectively remains only in the non-trading sector (e.g. waste and agricultural projects with no energy component).

The Nordic Council of Ministers recently commissioned a study on the issue, carried out by GreenStream Network. The study concludes that the scope for emission reduction projects – excluding the set-asides - in the EU Baltic Sea Region is reduced by around 80-85 % due to the Linking Directive. If the magnitude of the current set-asides is taken into account, the scope for JI has decreased by around 70-80 %.

Table 1 shows the magnitude of the set-asides (in accordance with current information), the estimate on the remaining potential⁶ for new JI projects in the Baltic States and Poland. It also presents information on projects already at determination (or at early mover validation).

Table 5 JI potential selected EU Member States 2008-2012

Country	Set-asides	Remaining Potential	Projects Validated / Determined	
	(Mt)	(conservative estimate, Mt)	(Number)	(Mt)
Estonia	10.1	1 – 2	11	3.1
Latvia	0	4 – 6	1	0.03
Lithuania	1.0	8 – 10	7	4.0
Poland	22.0 ⁸	30 – 40	15	4.6
TOTAL	33.1	≈ 40 – 60	33	9.3

⁶ The remaining potential has been estimated in the recent study “Linking Directive and the Potential for Joint Implementation” commissioned by The Nordic Council of Ministers and carried out by GreenStream Network. The study underlines that the given estimate on the remaining potential must be treated with caution for several reasons. First, the data on which the estimate is based is partly incomplete and out of date. Second, the estimate must be regarded as ‘conservative’ compared to some numbers presented in the literature. Third, the estimate does not take into account any project-level feasibility or risk factors, which are necessary in order to map realistic potential. In particular, it is questionable if and how long sufficient incentives exist at the project-level to initiate projects: in the current climate policy context (JI crediting period 2008-2012, no post-Kyoto agreement), the window of opportunity to implement JI projects is closing rapidly.

The European Commission, having considered the national allocation plans of the Baltic States and Poland, decided to cut the proposed total allocation of each of these Member States for the second phase of the EU ETS (2008-2012). All Baltic States and Poland, along with some other Member States, have decided to challenge the Commission's rulings and bring the issue to court. Consequently, the second set-aside contained in the currently available versions of the national allocation plans does not necessarily reflect the final outcome; projects that are listed in the second set-aside, or projects that are not identified in either set-aside face the risk of being denied host country approval. The first rulings are not expected until 2009 at the earliest, but host countries may issue further Letters of Approval (LoA) in the meantime.

Of the five ERPAs concluded by TGF, two Estonian and two Lithuanian projects have already secured LoAs from the host countries and are included in the first set-asides of the countries. The fifth contracted project, a wind farm in Estonia, is identified in the second set-aside of Estonia's national allocation plan. The Estonian authorities have indicated that JI projects at advanced stages of development are most likely to be granted host country approval; the revised second set-aside will operate on a first-come-first-served principle and it will be dimensioned on the basis of the needs of existing mature projects. The size of the revised second set-aside has not yet been published. One further Estonian project and one Lithuanian project at OA stage have been listed in the original set-asides of the countries. There is only one EU project in the current TGF portfolio – an Estonian wind farm project at OA stage – that was not mentioned in either set-aside of the host country.

2.3.4 Regulatory frameworks and potential for JI in host countries

Baltic States

The national JI frameworks in Estonia, Latvia and Lithuania are in the process of being finalised, and all countries have taken steps to achieve Track 1 eligibility. Lithuania has appointed the Ministry of Environment as the Designated Focal Point (DFP) for approving JI projects, but has not yet published national JI guidelines. Estonia and Latvia are both lacking formally appointed DFPs and JI guidelines, preventing JI projects hosted by these countries from achieving final determination. Estonian authorities have indicated that the Ministry of the Environment will be responsible for approving JI projects in the country and that the JI guidelines will be published shortly. Both Estonia and Lithuania have emission-intensive energy baselines. By contrast, the Latvian energy sector is less emission-intensive, which limits the JI potential in this sector. As discussed in the previous section, the EU ETS significantly limits the potential of JI projects in the energy sectors in all of the Baltic States.

Poland

The main barrier to developing JI projects in Poland is the lack of political support for JI. The JI potential is also limited by the EU ETS.

Russia

The lack of a clear stance on JI in Russia has been the most pressing concern throughout the existence of TGF, presenting a major barrier to untapping Russia's huge JI potential. After the Russian ratification of the Kyoto Protocol in November 2004, further progress on the country's JI framework came to a long standstill, rendering many Russian project developers reluctant to engage in JI ventures. The situation has improved recently: Russia has taken important steps towards achieving eligibility to host JI projects and transfer ERUs, including the appointment of responsible authorities and the adoption of the national JI procedures in May 2007. Russia may be able to achieve full compliance under the Kyoto Protocol and to have in place the framework for transferring ERUs by the end of 2007 or early 2008. The procedures and institutions for assessing and approving JI projects are currently being established, and first approvals are expected to be issued during autumn 2007. The JI approval process is likely to be time-consuming, given the involvement of multiple authorities and the need for government approval for each JI project. The process may prove especially challenging for small-scale and public sector projects in remote locations. (Korppoo 2007; Korppoo & Moe 2007.)

Ukraine

Ranked as the second-best JI host country, Ukraine offers a lucrative combination of enormous JI potential and a functional regulatory framework for JI. Ukraine has also made significant progress towards achieving Track 1 eligibility, and its national GHG registry is expected to be launched shortly. On the downside, corruption, transparency issues and legal and political instability continue to undermine foreign investments despite the recent liberalisation of markets.

2.3.5 Compatibility of TGF objectives and operations with external context

The geographic scope of TGF, originating from the BASREC framework, sets considerable constraints on the potential of eligible JI projects. The JI potential in eligible host countries has been limited by the EU ETS on the one hand and by slow institutional progress in Russia (and also Poland) on the other. Against this backdrop, the expansion of TGF to Ukraine was an excellent strategic move, although finding and contracting promising projects has proven to be a difficult task. NEFCO's inexperience in the country may also have hindered successful origination, although two full-time local representatives were promptly employed to fill this gap.

It is possible that TGF may have missed out on some JI opportunities by expanding to Ukraine at a relatively late stage, later than many other buyers. Overall, the somewhat slow operationalisation of TGF may have cost the fund some competitive advantages in securing the most attractive JI deals, given that numerous other buyers had taken a head start on developing their JI pipelines and that the Linking Directive has reduced JI potential since 2005 (see Figure 4).

Figure 4 Timeline of carbon market developments

TGF's early emphasis on the Baltic States – largely by-passed by other buyers – has also been a successful strategic move: in these countries, NEFCO's long-standing local experience and focus on small-scale projects has been a fruitful combination. TGF's status as a major buyer has

facilitated the host country approval process and hastened the progress in setting up JI institutions.

Reliance on NEFCO's traditional strengths also poses challenges: the low political weight of small projects in remote areas may cause delays in project implementation. On the other hand NEFCO's good reputation in the BASREC area and TGF's active involvement in large projects in co-operation with other buyers serve as excellent counterbalances.

Figure 4 plots milestones in international and national climate policy alongside TGF's key developments, displaying the persistent and pervasive uncertainties in JI policy. Overall, and especially in Russia, TGF seems to have progressed well, managing to develop a substantial pipeline of projects despite the extremely difficult external operating environment. Now that Russia's JI framework is finally in place, TGF's groundwork and its Russian pipeline will be soon put to the test.

2.4 Results of TGF

2.4.1 Development of TGF's project portfolio

Over time, especially after private sector investors joined TGF, emphasis has increasingly shifted from learning and capacity building to developing a portfolio of cost-effective, high-quality JI projects. This is reflected in the rapid expansion of the TGF portfolio during 2006 and especially in 2007.

TGF has evaluated well over 100 project ideas, of which around 60 have been presented to the Investors' Committee for preliminary approval (Figure 5). Of these, three have been rejected by the IC, and the rest have been granted preliminary approval. Fourteen projects have reached Option Agreement stage, and a further five have signed ERPAs. Ten TGF projects are currently undergoing Track 2 determination, making TGF one of the leading buyers in terms of Track 2 projects (Figure 6).

Figure 5 TGF pipeline by host country and status (as of August 2007)

Note: Information regarding the pipeline is from June 2007.

Figure 6 Top 6 ERU buyers (as of July 2007)

Source: UNEP/Risoe CDM/JI Pipeline Analysis and Database, 18 July 2007.

In 2007, the portfolio has expanded rapidly: between January and August, the portfolio grew from three to five ERPAs and from three to fourteen Option Agreements. Three further Option Agreements are ready for signing, and dozens more are under development. As of the end of August 2007, the TGF has contracted 4.64 Mt CO₂e or approximately 81 % of the fund's capital in nominal terms. Of this, ERPAs cover 0.9 Mt and the rest is committed under OAs. The three pending OAs would bring the share of committed capital to 90 %. The current portfolio is summarised in Table 6.⁷

The portfolio is likely to undergo changes in the future; some Option Agreements and even ERPAs may expire and new contracts will be concluded for some time to come. TGF will continue procurement through over-allocation of the fund's capital in order to ensure the full delivery of credits and hedge against under-delivery and expiry of current deals.

Next, projects in the TGF portfolio are evaluated against Project Selection and Portfolio Criteria, as contained in the Operating Guidelines and listed in Table 4.

Reasonable regional distribution among interested potential host countries?

Over half of the evaluated project ideas have originated from Russia, and half of TGF's portfolio (ERPAs and OAs) consists of Russian projects (Figure 3). However, no Russian projects have yet reached ERPA stage; ERPAs have thus far been concluded only with Estonian and Lithuanian projects. The lack of a national JI framework and the consequent reluctance of Russian project developers to proceed with negotiations have presented the greatest bottlenecks for contracting JI projects in Russia. In Estonia and Lithuania, TGF has been very successful with contracts – virtually all projects that have been granted preliminary approval have advanced to ERPA or OA stage – thanks to TGF's status as a major credit

⁷ Note that, in Table 6, the total volume contracted by TGF is less than the total emission reductions of individual projects, since some projects are co-purchased (TGF's share is not reported).

buyer and NEFCO's good reputation and experience in these countries. Also, the bureaucratic challenge is not as massive in the small Baltic States as it is in Russia. Despite being the only TGF host country with a functional national JI framework, Ukrainian projects have displayed a modest success rate thus far and are scantily represented in the portfolio; two Ukrainian projects have reached OA stage and two further Ukrainian OAs are expected shortly. This may be attributable to TGF's late arrival and NEFCO's limited experience in the country, as well as the challenging investment climate in the country. Poland and Latvia are absent from the TGF pipeline, the former mainly due to lack of political support for JI, and the latter due to limited JI potential as a result of a low-emission energy baseline. The JI potential of Poland and the Baltic States is further limited by the EU ETS. Overall, the TGF portfolio displays reasonable regional distribution among interested and potential host countries.

Compatibility with host country priorities and rules for JI?

Adequate assessment of the compatibility of TGF projects with host countries' JI policies is difficult due to lack of finalised national JI guidelines in all but one of the potential TGF host countries (Ukraine). During stakeholder interviews, the representative of Estonian JI authorities confirmed that TGF's projects are in line with the country's (unpublished) JI procedures and priorities. This is a natural result of the close and continuous co-operation and communication that TGF staff has sustained with Estonian JI authorities. For the same reason, it is likely that TGF's projects in Lithuania are compatible with unpublished Lithuanian JI policy; general feed-back from the representative of the Lithuanian GHG registry authority on TGF was positive. Details of the Russian JI priorities and rules – including efficiency standards – are not available at the time of writing, but it seems that Russia will favour JI projects that contribute to the Russian economy and involve up-to-date technology. Projects that lack a clear Russian contribution, such as flaring of collected methane instead of its use for electricity generation, may not receive approval. TGF's focus in energy sector projects seems to be in line with Russian priorities.

Energy sector projects?

The current portfolio is dominated by energy sector projects, with a strong emphasis on renewable energy and energy efficiency (Figure 7). In fact, all projects in the portfolio have an energy component, including wastewater treatment to produce biogas for cogeneration and landfill gas-to-energy projects. In this respect, the portfolio is fully in line with TGF objectives and priorities.

Figure 7 TGF pipeline and portfolio by type and status (as of August 2007)

Table 6 TGF's project portfolio (as of August 2007)

Host Country	Project	Category	Emission Reductions (tCO ₂ e)	Status
Estonia	Saaremaa animal waste management	Renewable energy; waste treatment; biogas	88 000	ERPA signed
Estonia	Viru Nigula 24 MW wind power*	Renewable energy; wind	384 000	ERPA signed
Estonia	Vanaküla 9 MW wind power	Renewable energy; wind	127 000	ERPA signed
Lithuania	Benaičiai 16.5 MW wind power	Renewable energy; wind	130 000	ERPA signed
Lithuania	Lapes LFG utilisation	Waste management; landfill gas; energy generation	188 000	ERPA signed
Estonia	Kunda 7 MW wind power	Renewable energy; wind	93 000	OA signed
Estonia	Aulepa 40 MW wind power*	Renewable energy; wind	450 000	OA signed
Lithuania	Sudenai/Lendimai wind power	Renewable energy; wind	110 000	OA signed
Russia	Murmansk DH rehabilitation*	Energy efficiency: supply side	297 000	OA signed
Russia	Khimprom was coke oven gas utilisation	Energy efficiency: supply side	354 000	OA signed
Russia	Vodokanal methane reduction and cogeneration*	Wastewater treatment; biogas; CHP	688 000	OA signed
Russia	Zheshart biomass fuel switch	Renewable energy; fuel switch	77 000	OA signed
Russia	Kirov Oblast coal/mazut-to-gas/biomass*	Energy efficiency: supply side	1 838 000	OA signed
Russia	Chelyabinsk LFG utilisation*	Waste management; landfill gas	2 000 000	OA signed
Russia	Not published	Renewable energy; biogas	n/a	OA signed
Russia	Not published	Energy efficiency: district heating	n/a	OA signed
Russia	Not published	Fuel switch	n/a	OA signed
Ukraine	CHP plant at Chervonograd*	Energy efficiency: supply side	280 000	OA signed
Ukraine	Portfolio of wind in Crimea (300 MW)*	Renewable energy; wind	3 680 000	OA signed
Russia	Not published	Fuel switch: HFO-to-gas	n/a	OA pending
Ukraine	Not published	Energy efficiency: gas utilisation	n/a	OA pending
Ukraine	Not published	Energy efficiency: gas utilisation	n/a	OA pending
TOTAL	Russia: 10	Renewable energy: 10	4,65 MtCO₂e	19 contracted projects
	Estonia: 5	Energy efficiency: 7		5 ERPAs
	Lithuania: 3	Waste: 3		14 OAs
	Ukraine: 4	Fuel switch: 2		(3 OAs pending)

* Asterisk indicates co-purchasing; TGF contracts only some (unreported) share of the project's emission reductions.

Proven and replicable technologies?

The current portfolio consists of proven technologies, many of which have considerable replication potential. Wind projects are the most numerous sub-type with seven projects in Estonia, Lithuania and Ukraine. A Russian project at OA stage involves fuel-switching from coal and mazut to biomass and natural gas in 120 municipal boiler houses. An Estonian project concerning the utilisation of biogas derived from pig manure for producing energy and a natural fertilizer also has significant replication potential.

Competence of project owners and viability of projects?

Detailed project-level information was not available to the authors in order to evaluate the competence of project developers and the feasibility of TGF projects. Given NEFCO's extensive experience in project financing and assessment, it is reasonable to assume that projects that pass NEFCO's due diligence and IC scrutiny have been able to demonstrate adequate feasibility and competence, notwithstanding the considerable challenges of investigating opaque ownership structures and questionable business practices prevailing in many JI host countries, as pointed out by several interviewees and confirmed by numerous market studies. If deemed necessary, the capacity of project owners is bolstered with technical assistance from TGF, in line with the provisions of Project Selection Criteria.

Cost-effectiveness?

Detailed information on project-level costs was not available to the authors in order to evaluate cost-effectiveness. However, the average price across the current portfolio of roughly € per credit indicates a reasonable price level, consistent with the lower end of the prevailing price range of projects in the relevant risk category (where the buyer bears relatively high risks). Furthermore, all interviewed investors expressed their satisfaction with the price level of TGF contracts.

Reduction of transaction costs, especially with small-scale projects?

Detailed project-level cost data were not available to the authors in order to evaluate the level transaction costs. However, the abundance of small-scale projects⁸ in the TGF portfolio indicates that transaction costs of such projects are not prohibitively high (Figure 8). For one, TGF has an exceptionally lean and streamlined management structure which relies heavily on synergies with NEFCO's business-as-usual activities. The bulk of prospective TGF projects originate from NEFCO's own pipeline; approximately a third of the projects in the TGF portfolio have been sourced from the NEFCO pipeline. In fact, most of NEFCO's projects could generate credits, but NEFCO's focus on small investments renders

⁸ A threshold of 250 000 t CO₂e by 2012 is used by many buyers; official small-scale thresholds vary across project types.

many projects too small to be feasible under JI,⁹ due to low credit generation potential and high transaction costs. On the other hand, the possibility to utilise NEFCO's procedures for project identification and screening helps to keep transaction costs in check, thus offsetting the disadvantages of implementing small-scale projects. Overall, TGF seems exceptionally well-positioned to implement small-scale projects; TGF's greatest competitive advantage lay in the small Baltic States where most of the potential JI projects are small and thus disregarded by many buyers.

Figure 8. Projects in TGF's portfolio by size

Project- and country-level data as of June 2007 (for 16 projects), and portfolio-wide data as of August 2007.

At the other end of the spectrum, TGF engages in large projects through co-purchasing. Co-purchase deals typically incur lower transaction costs due to cost-sharing and the lower unit transaction costs associated with large projects. At the time of writing, TGF is involved in nine JI projects at OA or ERPA stage where the credits are purchased in co-operation with another party or parties, accounting for around half of the projects in the portfolio. NEFCO is a co-purchaser in three projects with both the Swedish Energy Agency (STEM) and the Danish Environmental Protec-

⁹ Limits vary across financing sources, but NEFCO loans seldom exceed 3 million euros. This is a factor limiting the JI potential of certain project types, such as energy efficiency.

tion Agency (DEPA), and in one project with the Finnish Carbon Procurement Programme (Finnder), one with the German public bank kfw, and one with the European Bank for Reconstruction and Development (EBRD). The use of local consultants and involvement in fairly standard project types have also contributed to keeping transaction costs in check.

Early implementation?

The development of the TGF pipeline began in 2004, and a call for Expressions of Interests was made in August 2004. By October 2005, two projects had advanced to draft ERPA stage, a further five or so were at mature stages of negotiation, and a dozen others were in the pipeline. The first ERPA was signed in January 2006 with an Estonian biogas project. Early credits in the form of AAUs have been contracted from a total of four Baltic projects, accounting for roughly 100 000 t CO₂e during 2006-2007 or less than 1 % of the total volume to be contracted. No further early credits are expected. Most JI projects in the TGF pipeline will be operational during 2008, although not necessarily at the beginning of the year. The limited extent of early implementation may be partly attributable to the somewhat slow operationalisation of TGF and lack of full-time TGF staff until June 2005, notwithstanding the barriers imposed by the incompleteness and significant uncertainties of the international and national JI frameworks at the time.

Kyoto eligibility?

As a pioneer of JI, TGF was forced to shoulder considerable risks relating to Kyoto eligibility during the early years in order to facilitate early implementation. TGF applied provisional procedures to increase the likelihood of the projects' eligibility under the Kyoto Protocol, including the application of CDM methodologies and procedures (validation or informal determination by Designated Operational Entities, DOEs) until JI Track 2 was launched in late 2006. Payments for the first contracted project are made against the submission of a verification report, regardless of whether the verified emission reductions will eventually be issued and transferred as AAUs or ERUs. All other TGF contracts are safeguarded against non-eligibility by conditions precedent and payment against transfers. Thus far, TGF's track record with regard to Kyoto eligibility seems promising; five projects with signed ERPAs have passed informal determination by Designated Operational Entities. Ten TGF projects are currently at Track 2 determination, and final determination is prevented by lack of necessary host country institutions rather than non-compliance with Kyoto criteria. All TGF host countries have taken necessary steps to achieve Kyoto eligibility, albeit within an uncertain timeframe.

Predictability of timing of delivery?

The timing of delivery will remain difficult to predict as long as the necessary infrastructure and institutions are lacking. These bottlenecks are external and mostly beyond TGF's control. TGF's policy to conclude ERPAs at relatively mature stages of project development and after determination increases the predictability of the generation of credits. TGF has taken steps to ensure – to the extent possible – that no barriers exist for receiving credits as soon as the International Transaction Log is functional and participating countries have achieved eligibility to issues, transfer and acquire Kyoto units. For example, TGF has set up temporary arrangements for acquiring credits by opening an account in the GHG registry of one of the investor countries, where all credits from TGF project may be transferred by the host country before being distributed to investors by TGF. Due to the current lack of detailed host country procedures for issuing and transferring JI credits, it is unclear whether this arrangement is workable. Despite TGF's efforts to mitigate uncertainties, the timing of delivery remains one of the most uncertain issues at the time of writing.

Payments mostly against delivery?

Approximately half of the projects in the current portfolio make use of some form of advance payment. However, advance payments are not always utilised to the maximum extent (50 % of contract value). This implies that payments for ERUs/AAUs are made predominantly against delivery, which is more or less in line with Project Portfolio Criteria.

Reasonable balance between investor interests?

Interviews with investors revealed that all investors – public and private alike – shared a common interest for the acquisition of cost-effective credits.¹⁰ The recent expansion of the project portfolio fully reflects current priorities across all investors. There have been slight differences in investors' views with regard to acceptable project types; private investors place most emphasis on cost-effectiveness and risk management, while some public investors pay attention to the quality, energy component and environmental benefits of projects. Certainty and timing of delivery are more crucial for private investors who need to develop a carbon strategy for annual compliance, than for public investors who only need credits for compliance purposes in 2013. However, such differences in emphasis are dwarfed by the common interest of contracting an extensive portfolio of successful JI projects.

¹⁰ Although private investors are unable to use early credit AAUs for compliance under the EU ETS, such credits account for less than 1 % of the total volume and thus, this is not an issue of concern. It has been agreed that public investors will receive the early credit AAUs, and private investors receive their full share in ERUs.

2.4.2 International Emissions Trading under the Kyoto Protocol

The Operating Guidelines contain provisions for the re-sale of ERUs, which would fall under International Emissions Trading under Article 17 of the Kyoto Protocol. However, there are currently no plans for TGF involvement in International Emissions Trading beyond the transfer of early credits as AAUs. Early credits are expected from four Baltic projects, accounting for less than 1 % of the total volume to be contracted.

2.4.3 Information dissemination and capacity building

Information dissemination and capacity building are stated objectives of the TGF, and TGF has been actively involved in fulfilling this mandate throughout its existence, with particular emphasis on capacity building during TGF's early years as a purely public fund. There is no separate budget for capacity building and information dissemination; they are absorbed as administrative costs and considered as an integral part of TGF's operations. Capacity building activities have been carried out on an ad hoc basis; there are no formulated strategies or plans for information dissemination and capacity building. TGF staff keeps a list of presentations given by NEFCO, and informs the IC of TGF's capacity building activities. Since June 2005, TGF has been a sponsor or speaker at 29 events, including international carbon conferences, EU and UN workshops and BASREC seminars.

The TGF website is updated regularly and it contains extensive information on TGF's operations and projects, including numerous conference presentations and two articles on TGF that have been published in JI newsletters (Joint Implementation Quarterly and JIKO-info).

TGF has participated in the development of the BASREC JI Handbook, which contains a specific chapter on developing JI projects under TGF, and includes the TGF's Project Idea Note template and standard ERPA. The handbook is available at the TGF website.

The implementation of JI projects constitutes a powerful channel for building capacity and disseminating information, and vice versa; profile-building enhances project origination and capacity building paves way for effective implementation. Through learning-by-doing, the experiences of TGF have accumulated and have been shared with host country authorities, local project developers and institutions, international, Nordic and local consultants, co-purchasers, and to some extent also Nordic technology providers. For example, TGF staff has provided information to Estonian JI authorities on the most pressing host country requirements such as the publishing of national JI guidelines as well as input to their national JI procedures. In Lithuania, TGF staff has assisted in the formulation of a model Letter of Approval for Lithuanian JI projects. Also, NEFCO staff has helped Nordic technology suppliers with evaluation and development of projects.

TGF has also significantly increased JI awareness within NEFCO and among NEFCO's networks and partnerships. Last but not least, TGF has close links to members of the JI Supervisory Committee and the UNFCCC's JI unit through TGF's staff and investors, allowing TGF's experiences to be passed along also to the international JI policy arena.

2.4.4 Addressing of the administrative and financial barriers and transaction costs in JI projects

Activities to address administrative and financial barriers and transaction costs have been carried out on an ad hoc basis, largely through the implementation of JI projects. No systematic monitoring or measurement of achievements seems to take place. TGF staff has provided valuable input and insights to support the JI-related institutional development especially in the Baltic States, and prompted host country authorities to address the most pressing barriers to JI approval. At the IC meetings, (public) investors have tackled many administrative issues, such as the identification of the appropriate arrangements for issuing approvals and steps required in to ensure the ability to receive credits. The current system was chosen on the basis of the least-cost principle: an account for TGF was opened in the GHG registry of one of the investor countries and this country will also issue the Letter of Approval for TGF projects except for co-purchase projects where one of TGF's investor countries is already involved directly as a buyer.

In the Fund Manager's opinion, the TGA provides extra security in addition to any Letters of Approval that are issued for TGF's JI projects, thus contributing to the alleviation of administrative barriers. However, the representative of the Estonian JI authority pointed out during their interview that, in Estonia, BASREC co-operation (and thus also the TGA) falls under the auspices of the Ministry of Economic Affairs and Communications, while the Ministry of the Environment has been put in charge of JI issues. This adds an unintended layer of bureaucracy for dealing with TGF issues in Estonia. This, however, is beyond the control of TGF.

Financial barriers and transaction costs are tackled primarily by making full use of synergies offered by NEFCO's own pipeline, infrastructure, resources and financing opportunities. At project-level, TGF addresses financial barriers by providing technical assistance funding and in-kind support for project development, and by offering advance payments. NEFCO's support makes it possible for TGF to remain as a relatively lean organisation, which contributes to keeping administrative transaction costs in check. Thus, TGF is exceptionally well positioned to identify and develop small-scale JI projects while keeping transaction costs at a reasonable level. Co-purchasing reduces transaction costs through cost-sharing and contracting of larger projects.

2.4.5 Addressing the issue of environmental integrity of JI projects

Environmental issues are an integral part of the standard NEFCO due diligence process, which is applied to all TGF projects. The NEFCO Environmental Guidelines for Project Application lists the environmental policy priorities pursued by NEFCO, requiring projects to have a direct or indirect positive environmental impact on the local and Nordic environment; to promote environmentally sound and sustainable development; to identify and quantify positive environmental impacts and ensure that any negative impacts are identified, assessed and mitigated; and to adopt adequate environmental procedures. To ensure that these priorities are met, NEFCO applies environmental procedures to determine whether the project needs further environmental consideration, such as an Environmental Impact Assessment or Environmental Audit, and carrying out of further environmental investigations as deemed necessary.

The IC has held discussions on the acceptability of different project types from the commercial and environmental perspectives. Among the three projects that have been denied preliminary approval were a landfill gas flaring project and a project aiming to avoid methane emissions from gas distribution, indicating the IC's reluctance to approve projects that lack an energy component and perhaps also lack a clear environmental (non-climate) dimension. Some private sector investors voiced their confidence in the public investors' ability to select high-quality projects that conform to environmental integrity and sustainable development criteria.

According to the Fund Manager, TGF focuses on energy projects with a high level of sustainable development benefits, including:

- providing an additional incentive for the transition to a lower carbon economy
- energy generation with reduced levels of associated air pollution;
- reduced reliance on increasingly expensive fossil fuels and more reliance on sustainably managed natural resources;
- improved operational reliability and comfort levels for communities, especially in the cold environments;
- employment related benefits through job creation and retention, training and development of new skills; and
- capital investment and technology transfer, especially in the poorer regions of Russia and Ukraine.

The environmental impacts are documented for some of the published TGF projects in the project fact sheets available at the TGF website. Ancillary environmental benefits of published TGF projects include improved water quality, reduction of local air pollution and other environmental nuisance, reduced risk of environmental hazards associated with waste disposal, increased health and safety and local amenity, and transfer of environmentally sound technologies.

3. Stakeholder interviews

In total, 15 stakeholder interviews were carried out to gather in-depth information and insights on the functioning and possible needs for changes of the TGF.

Representatives from the following stakeholder groups were interviewed (number of interviews in brackets):

- TGF staff at NEFCO (2)
- Governmental / private sector members of the Investors' Committee (6 / 2)
- Private sector investors not in the Investors' Committee (1)
- Host country authorities and project developers (3)
- Representatives of organisations that have co-purchased with TGF (1)

3.1 Methodology

The evaluation was launched in a kick-off meeting between GSN and the Programme Manager (Mr Ash Sharma) and Legal Counsel (Ms Janika Blom) of the TGF in June 2007, followed by an in-depth interview with the TGF Programme Manager to gather information for Task 1 and to pave way for other stakeholder interviews in early July.

All investors were approached via e-mail to describe the purpose of the evaluation and to offer an opportunity to share their views and experiences on the TGF. Contact information of representatives of the investors was obtained from TGF staff. E-mails were sent to a total of 22 representatives of the 15 investors of the TGF in early July.

Interview requests were also sent via e-mail to seven representatives of five further organisations that have co-operated with the TGF, including JI authorities and project developers in Estonia and Lithuania. Estonia and Lithuania were selected due to the dominant share in the current TGF portfolio of JI projects hosted by these countries. TGF co-operation includes co-purchasing JI project credits together with Denmark, Finland and Sweden. Project-level co-operation was discussed with the Programme Manager of the Finnish Carbon Procurement Programme (Finneder) and also incorporated into the interviews with the Swedish and Danish IC representatives. A total of four representatives of four organisations were interviewed (in addition to the Danish and Swedish representatives of the IC); the Estonian project developer was not available for interview.

The process concluded with an interview with the Legal Counsel of the TGF, which took place in early August after other stakeholder interviews had been conducted. This interview focused on the evolution and status of legal issues and also offered an opportunity to seek clarification on issues that had arisen during stakeholder interviews and the fact-finding mission under Task 1.

A total of 15 interviews representing 12 different investors or organisations were conducted in July and August 2007. The interviewees are listed in Table 7 below. The interviews were primarily carried out as phone interviews with semi-structured questionnaires allowing for interaction and free discussion during the interviews. Interviewees were sent a customised questionnaire consisting of a relevant sub-set of questions, by e-mail before the interview. Interviews with TGF staff at NEFCO differed from other interviews in their wider coverage and greater emphasis on detailed operational issues, and therefore, they were structured mostly around Task 1 issues and less so around the questionnaire.

Table 7 List of interviewees

TGF staff at NEFCO (n=2)
Ms Janika Blom, Legal Counsel for TGF Mr Ash Sharma, Programme Manager for TGF
Investors' Committee representatives (public, n=6)
Ms Barbara Appel, Finnish Ministry of the Environment Mr Bengt Boström, Swedish Energy Agency (STEM) Mr Ola Hansén, Swedish Energy Agency (STEM) Mr Peter Pedersen, formerly at Danish Environmental Protection Agency (DEPA) Mr Uwe Schroeder-Selbach, German Federal Ministry for Economics and Technology Mr Juhani Tirkkonen, Finnish Ministry of Trade and Industry
Investors' Committee representatives (private, n=2)
Ms Nina Holmboe, DONG Energy, Denmark Mr Erik Nieminen, Vapo Oy, Finland
Representative of investors not in the Investors' Committee (n=1)
Ms Johanna Gustafsson, Outokumpu Oyj, Finland
Representatives of organisations that have co-operated with TGF (n=4)
Mr Juha Seppälä, Finnish Carbon Procurement Programme (Finnder) Ms Eve Tamme, Estonian Ministry of the Environment Representative of a Lithuanian JI project Representative of the Lithuanian national GHG registry

3.2. Key findings

3.2.1 Decisions, agreements and objectives of the TGF

In general, investors were satisfied with the initial set-up, evolution and current status of the institutional framework governing TGF and pleased with the responsiveness to changes in both the composition of the investor base and the external operating environment.

Some investors emphasised the importance of bearing in mind the evolution of TGF from a governmental fund to a fully fledged public-private partnership when assessing the initial set-up against current operations of the TGF. Against this backdrop, the shift of focus from capacity building and learning-by-doing to commercially-oriented acquisition of cost-effective credits – manifested by the expansion of the geographical and sectoral scopes and involvement in larger projects – represent natural and appropriate evolution, reflecting changes in priorities of the wider investor base, especially the commercial interests of private sector participants.

This shift of focus to procurement of credits reflects the general preferences of all investors, public and private alike, notwithstanding the differences in the emphases of public and private investors. The public sector tends to emphasise project quality, diversity and policy issues while the private sector is primarily seeking cost-effective credits. This said, both parties recognise the importance of striking a balance between various objectives (rather than choosing one over the other) and feel that the public-private partnership has successfully promoted mutual understanding and learning through the introduction of new perspectives and the discovery of extensive common ground. The private sector investors appreciate the co-operation with public investors who lend their credibility, political weight and experience to the fund, rendering TGF a safe entry point to the carbon market and a unique learning experience. Private investors also rely on the public participants' and NEFCO's ability to select high-quality projects. Public investors welcome the boost in commerciality brought about by the private investors, characterised as "a breath of fresh air" by several public investors.

Concerning the geographic scope of TGF, all interviewed investors acknowledged the challenges associated with, and limitations imposed by potential TGF host countries, with special reference made to the risks related to Russian JI projects and the impact of the Linking Directive. On the other hand, investors appreciate the benefits of a clearly defined geographic and sectoral focus that is based on the BASREC framework and corresponds to NEFCO's competitive advantages and expertise. In this light, TGF's initial focus on the Baltic States was commended. All interviewed investors fully supported the inclusion of Ukraine as an eligible host country and believed it to be the appropriate response to the limited

JI potential in the Baltic States and Poland due to EU ETS and the persistent Russia-risk. Many interviewed investors suspected that JI opportunities were missed due to slow decision-making regarding the Ukraine issue, while some interviewees questioned this view by pointing out the lack of a national JI framework in Ukraine at the time.

Most interviewees recognised that a focus on (small-scale) energy sector projects limits the potential of commercially attractive JI projects; they also acknowledged that this focus may be justified for other (political) reasons but not so much from a purely commercial perspective. Overall, the advantages of having a sectoral focus were considered greater than the constraints it might impose.

The interviewees recommended keeping the sectoral and geographic scope clearly defined yet sufficiently flexible.

3.2.2 Operations of the TGF: staffing and resources

Investors were in full consensus on the adequacy and competence of current TGF staff; TGF staff at NEFCO – as well as NEFCO as an institution – enjoys wide support and trust among investors and other stakeholders alike. Most respondents felt that TGF was initially under-staffed, leading some investors to speculate whether JI opportunities were missed due to the sluggish start of TGF. In any case, the current period was considered critical in terms of portfolio development. The possibility to utilise NEFCO's in-house resources and local networks was considered a significant advantage of TGF.

Interviewees recommended taking any and all necessary action – including hiring of external consultants, if deemed necessary – to promptly secure successful contracting and implementation of the final portfolio, as well as to identify new projects for as long as the window remains open. The utilisation of local resources and capacity was also encouraged.

3.2.3 Operations of the TGF: Organisation, roles and responsibilities

The organisation of TGF and the division of roles and responsibilities between the Investors' Committee and NEFCO was considered to have improved gradually, if sometimes with a lag, evolving over time into the currently well-functioning, responsive, transparent, flexible and streamlined system. Many respondents commended the well-balanced and clearly defined division of labour: the IC has the opportunity to discuss key issues and provide valuable guidance and input to the TGF process while steering clear of excessive micro-management and NEFCO enjoys sufficient freedom, power and trust to take care of the practical implementation of TGF.

The extensive policy discussions of the early years, while tedious and time-consuming, have resulted in efficient and solid outcomes and the

simplification of bureaucratic hurdles. From the private perspective, the Investors' Committee spends an unproportionate share of time discussing policy issues; while recognising the importance of finding satisfactory ways around institutional barriers, the private sector calls for more efficient, solutions-oriented discussions. Public investors recognise this problem but also welcome the opportunity to share views and develop and harmonise institutions in the BASREC region; many consider the IC as the appropriate arena (at least in the early days) for such work.

Striking a balance between policy-related and commercial aspects presents a potential advantage of TGF, but also continues to pose challenges. Compared with newer private funds, TGF is more bureaucratic and investor-controlled, partly because new funds have already made use of TGF's experiences. TGF compares well against other multilateral funds; it has a lean management structure and a surprisingly flexible and efficient decision-making process, and it is exceptionally open and transparent in its operations.

Interviewees recommended considering increasing NEFCO's freedom at the boundaries of its powers by developing the use of the written procedure and continuing efforts to seek the appropriate balance between policy- and project-related discussions at IC meetings with a view to streamlining communications, steering clear of micro-management and focusing on general guidance.

3.2.4 Operations of the TGF: Decision-making process

Investors view the current decision-making process of the TGF as smooth, flexible and efficient. No-one feels that decision-making has ever presented bottlenecks for the contracting of projects or for other operations of TGF. All agree that the first priority of virtually all investors, public and private investors alike, is the successful contracting of cost-effective credits from commercially viable projects. This common goal has rendered consensus-driven decision-making smooth and mostly conflict-free.

All investors welcomed the increased utilisation of the written procedure and praised its contribution to efficient and fast decision-making in-between meetings, thus avoiding delays in project contracting at this critical point of time. Meetings are still considered valuable for exchanging views on project-related issues; especially private sector investors have appreciated the learning experience associated with such discussions.

Interviewees recommended continuing the use of the written procedure whenever deemed necessary and offering an opportunity for online discussions on project-related issues when the written procedure is applied.

3.2.5 Operations of the TGF: Functioning of the Investors' Committee

Overall, the Investors' Committee is considered to function well and in good spirits. The discussions are often dominated by a few active, experienced investors, and increased contribution from currently inactive investors, particularly private sector investors, was encouraged by several interviewees. Some public investors highlighted the importance of safeguarding the private sectors' interests regardless of their level of activity, as a measure to preserve consensus among investors. The IC members were commended for their good preparation and valuable and useful input.

Interviewees recommended considering the reduction of the number of IC meetings from four to three in the future and bridging the gap with written procedures as necessary.

3.2.6 Operations of the TGF: Information dissemination and capacity building activities

In general, the dialogue between NEFCO and the IC is considered excellent. Some investors, however, struggle with forming an overall picture of the current status and risk profile of TGF based on the distributed material, considering the limited timeframe that most investors have available for going through documentation. Private investors need to report back to their colleagues on concrete issues such as price, timing, volume, likelihood and risks of delivery of carbon credits. This information is important for private investors who need to draw up carbon strategies for annual compliance under the EU ETS.

As for more general capacity building and information dissemination activities, investors recognise the importance of such activities and trust NEFCO to carry out the necessary tasks as it sees best. Some feel that the time for capacity building is now over, and all focus should now be directed towards the development of the TGF portfolio.

Interviewees recommended considering the circulation to investors of a compact (1-2 pages) standardised monthly management report containing critical information on the TGF portfolio in a readily accessible format.

3.2.7 Operation of the TGF: Co-operation with other organisations

TGF's active and diverse involvement in co-purchasing is fully supported by all investors. The sharing of costs, risks and experiences as well as the opportunity to get involved in large projects were cited as the key benefits of co-operation. Investor countries are keen to co-operate with TGF since this allows them to receive credits through two channels and to benefit from NEFCO's expertise, financing and due diligence. TGF is a desirable partner also because of common values and policies. Private

investors would welcome opportunities to purchase additional volumes on a case-by-case basis in co-operation with TGF, provided that the investors' role is limited to the provision of additional capital and/or project technology. Further co-operation was welcomed by all interviewees, although many were sceptical of the remaining window of opportunity for collaboration.

Interviewees recommended continuing to seek co-operation with other buyers, noting that international carbon funds are likely to be the most realistic option remaining.

3.2.8 External context: development of the carbon market

Overall, investors felt that TGF had done as well as possible, given the very difficult external circumstances, notably the challenges posed by the Russia-risk and the Linking Directive. In hindsight, some investors doubted whether the TGF would have even been launched had the current situation been known at the time. TGF's capability and willingness to respond, as well as the chosen responses themselves were commended, while the occasional delays (due to lengthy IC discussions) in the responses were criticized. There was wide agreement that TGF is currently doing everything in its power to develop a successful portfolio, and the remaining backlogs and bottlenecks are all external and beyond TGF's control. As a testimony of TGF's attractiveness as a buyer, one investor pointed out TGF's success in secure contracts for several competitive projects. TGF's initial focus in the Baltic States as well as its current efforts in Russia received praise.

Interviewees recommended turning the focus to Russia, discussing and deciding on the appropriate strategic moves, and exercising an appropriate level of caution.

3.2.9 Results of the TGF

Investors are generally satisfied with the price level of the TGF portfolio. The slow start in portfolio development, the current contracted volume and uncertainties regarding the timing of delivery, on the other hand, were sources of disappointment and concern for many investors. The current pace of portfolio development was considered encouraging by all investors, although the limited strength of Option Agreements was pointed out by some interviewees. All investors pointed to Russia as the greatest question mark; TGF's success in Russia will determine the ultimate verdict on TGF's overall success.

Public investors with experience with JI projects voiced the least concern and were most satisfied with and optimistic about TGF's progress thus far. One investor reminded that the conclusion of an ERPA is in fact

only the beginning of the JI project, not the end, and recommended TGF to keep a close eye on projects also during the implementation phase.

Private investors initially joined TGF because of the benefits offered by the presence of public investors and NEFCO (which was praised as an excellent choice as Fund Manager): stability, credibility, political goodwill, experience and learning opportunities. These expectations have been met.

Some investors felt that TGF's has now achieved its task of supporting and paving way for the private sector's take-over of the JI market, enabling the private sector to take a lead role in developing increasingly market-driven procurement initiatives and freeing public actors to concentrate on developing the underlying policy framework.

Interviewees recommended turning the focus to securing a successful portfolio by making efforts at all levels of the project cycle, from origination of new projects to concluding contracts to monitoring implementation. Furthermore, they underlined the need for continuous reality checks on policy decisions so as to keep TGF on the right track and to avoid placing TGF at any disadvantage at this extremely critical stage. Finally, interviewees felt that it was important to continue building on NEFCO's strengths through maximal utilisation of financing opportunities, local networks and consultants, and focusing on NEFCO's areas and sectors of expertise.

3.2.10 Co-operation with TGF

All interviewed parties that have co-operated with TGF were very pleased with the experience, especially with NEFCO's flexibility and competence in JI. The Lithuanian project developer appreciated TGF's efforts to take the developer's requests into account during negotiations and TGF's flexibility in seeking a case-specific optimal solution, citing TGF as the most attractive buyer among several options. The representative of the Estonian JI authority praised TGF's valuable input and insights on the national JI procedures, close contacts, contribution to capacity building, and TGF's early, hands-one involvement in project development in Estonia. Co-purchasers thanked NEFCO's flexibility and appreciated the opportunity to share experiences and make use of NEFCO's expertise and due diligence process, highlighting the importance of shared goals and a similar risk appetite for fruitful co-operation.

4. Conclusions and recommendations

The objectives of Testing Ground Co-operation – to build capacity and competence for Joint Implementation (JI) – have been fully incorporated into the operating principles and objectives of the Baltic Sea Region Testing Ground Facility (TGF), and closely followed also in the operations of the fund in practice. No conflicts were identified between the agreements, documents and decisions governing the TGF. At these final stages of project portfolio development and in the longer term, it may be advisable to consider relaxing some of the most restrictive requirements arising from the Baltic Sea Region Energy Co-operation (BASREC) framework, including the geographic scope of eligible JI projects and the emphasis on small-scale and energy sector projects, so as to promote the cost-effectiveness of the portfolio of contracted projects. To some extent, increased flexibility in interpretation of eligibility and a shift in emphasis from capacity building to commercial procurement is already observed. This evolution is compatible with TGF's development from a purely public fund to a fully fledged Public-Private Partnership and with the changes in the external operating environment. It is also useful to bear in mind that capacity building and commercial interests must not be viewed as competing, mutually exclusive objectives; the ongoing challenge is to maintain an optimal balance between these complementary activities by responding promptly and appropriately to changes in circumstances and priorities.

TGF has gradually evolved into a well-functioning and competitive fund with relatively efficient and flexible decision-making procedures and a lean and transparent management structure. TGF has been able to develop a reasonably balanced division of labour, preserving investor control over project approval while avoiding excessive micro-management and providing sufficient freedom for the Fund Manager (Nordic Environment Finance Corporation, NEFCO) to perform its tasks effectively, overcoming the challenges of its potentially bureaucratic set-up and diverse investor base.

Within the Investors' Committee (IC), the common priority of all investors to acquire cost-effective credits has made it possible to avoid major conflicts potentially arising from the somewhat differing emphases of public and private investors. This shared interest is manifested by a fast and smooth project approval process. The dominance of lengthy policy-related discussions among public investors at IC meetings suggests that there is still room for improvement in terms of achieving streamlined

and solutions-oriented dialogue. This said, IC's efforts to tackle policy-related issues form an essential element of TGF's mandate, and this work has been successful in finding solid, efficient solutions, reducing unnecessary layers of bureaucracy, facilitating the harmonisation of the JI frameworks in participating countries and significantly enhancing the administrative preparedness to acquire credits. This policy-related work has largely been completed, enabling TGF to focus increasingly on the commercial aspects of operation.

The appointment of NEFCO as the Fund Manager to the TGF has been a key advantage in various respects. NEFCO's experience and expertise correspond to the priority areas of TGF in terms of both regional and sectoral focus. TGF relies heavily on NEFCO's in-house administrative structure, project pipeline, evaluation procedures, financing opportunities, networks, reputation and expertise. Synergies between NEFCO's business-as-usual operations and TGF's activities have been exploited extensively, rendering TGF lean in terms of management and transaction costs and competitive with respect to provision of financing and other support. NEFCO's project pipeline has been an invaluable source of potential JI projects for TGF; NEFCO's projects have displayed the highest success rate among TGF projects, pointing to a high-quality screening process and the benefits of teaming up with an experienced international financing institution. Thus, TGF is exceptionally well-equipped to implement small-scale energy projects in various locations in the BASREC region. On the downside, NEFCO's pipeline consists of projects with limited credit generation potential, and larger, more cost-effective projects must be identified through alternative channels. TGF's active and extensive involvement in co-purchasing is commended. The initial problem of under-staffing appears to have been remedied: the current level of staffing is deemed adequate and staff members are competent and enjoy a high level of trust among all investors. However, continuous reassessment and monitoring of the adequacy of resources is extremely important in order to ensure that TGF maintains its capacity to operate successfully throughout the critical forthcoming months and years.

Thus far, the results of the TGF seem to be reasonably well in line with expectations. TGF has provided a unique and fruitful learning experience to its participants and partners, and beyond. Investors are generally satisfied with the price level of the TGF project portfolio, and the current pace of portfolio development is considered encouraging. Overall, however, the somewhat slow development of the TGF portfolio has disappointed most investors. Valid concerns have been raised about risks and uncertainties regarding the final volume and timing of delivery of credits from TGF's projects, and compact and accessible information on these, and other key parameters should be communicated to investors in a more standardised manner. Regularly updated, standardised management reporting is especially important to private investors, who require such

information for their own reporting and strategy formulation. While much of the blame for backlogs in portfolio development can be legitimately put on difficult external circumstances, it appears that some JI opportunities were missed due to delays in TGF's operationalisation and decision-making, especially with regard to early implementation and Ukrainian JI projects.

Looking ahead, TGF needs to focus its efforts on finalising its portfolio development, paying particular attention to its activities in Russia and Ukraine. TGF's overall success will be largely judged by its ability to turn Option Agreements into ERPAs, and in particular, by its success in Russia and Ukraine. Following the recent adoption of the Russian JI procedures, the forthcoming months are critical in this respect. In parallel to further contracting and origination of new projects, it is important to monitor the progress of already contracted and implemented projects, and provide support for their effective implementation as deemed necessary.

Finally, the recommendations of interviewed investors are summarised in Table 8 below. These recommendations are supported by the authors.

Table 8 Recommendations by interviewed investors

Interviewed investors recommended:
<p>Keeping the sectoral and geographic scope clearly defined yet sufficiently flexible; Taking any and all necessary action to secure contracting and implementation of TGF's final portfolio and to identify new projects for as long as the window remains open; The utilisation of local resources and capacity; Considering increasing NEFCO's freedom at the boundaries of its powers; Continuing efforts to seek balance between policy- and project-related discussions at IC meetings, streamlining communications, avoiding micro-management and focusing on general guidance; Continuing the use of the written procedure whenever deemed necessary, offering an opportunity for online discussions on project-related issues; Considering the reduction of the number of IC meetings in the long run from four to three meetings per year; Considering the circulation to investors of a standardised monthly management report; Continuing to seek co-operation with other buyers; and Turning the focus to Russia, discussing and deciding on the appropriate strategic moves.</p>

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Swedish summary

Nordiska ministerrådet har utsett GreenStream Network Ab att utvärdera Östersjöregionens Testing Ground Facility (TGF). Uppdraget består av tre delar, (1) utvärdering av verksamheten, (2) intervju av nyckelinvestorare, (3) slutsatser av nuvarande funktion och uppnådda resultat, samt rekommendationer för att förbättra verksamheten. TGF:s verksamhet och resultat har utvärderats mot TGF:s interna faktorer samt mot ett antal externa faktorer, bl.a. mot det framväxande internationella regelverket för utsläppshandelsmarknaden, som genomgått stora förändringar sedan TGF startade.

TGF:s syfte är (1) att finansiera JI-projekt, (2) att öka kunskapen om JI i regionen, (3) att medverka i uppfyllandet av Testing Ground -målen. Tyngdpunkten ligger i att genomföra JI-projekt av god kvalitet inom energisektorn. JI-projekt med tidig implementering är prioriterade. Målsättningarna för Testing Ground -samarbetet har helt inarbetats i riktlinjer och mål för TGF, vilka följs noggrant av TGF. TGF är öppet för att mildra några av de mest restriktiva kraven i ramverket för Östersjöregionens samarbete (BASREC), som den geografiska begränsningen och tonvikten på småskaliga projekt inom energisektorn. I viss mån önskas ökad flexibilitet i tolkningen av godtagbarhet. En förskjutning från kapacitetsbyggnad mot affärsmässig verksamhet kan redan observeras. Denna evolution är jämförbar med TGF:s utveckling från en enbart offentligt finansierad fond till ett fullständigt privat-offentlig partnerskap, agerandes i en omvälvande miljö.

TGF har utvecklats till en väl fungerande och konkurrenskraftig köpare av JI-utsläppsrätter. Dessutom bidrar TGF till JI kapacitetssupplemenet. TGF har en relativt effektiv och flexibel beslutsprocess samt en transparent ledningsstruktur. I alla investerare intresse är att förvärva kostnadseffektiva utsläppsrätter. Detta avspeglar sig också i en snabb och smidig process för projektval som dock fortfarande kan förbättras genom effektivare och en mer lösningsorienterad dialog. En viktig del i TGF:s uppdrag är att klara regulatoriska problem och i detta arbete har TGF varit framgångsrikt på att hitta lösningar. TGF har till stor del slutfört det regulatoriska arbetet vilket möjliggör att TGF kan öka sin kommersiella fokus.

Tillsättningen av NEFCO som fondförvaltare har varit till stor fördel för TGF. NEFCO:s expertkunskap sammanfaller väl med prioriterade områden inom TGF. Synergier mellan NEFCO:s normala verksamhetsområde och TGF:s verksamhet kan sålunda utnyttjats i stor omfattning. Detta har resulterat i bättre konkurrenskraft, samt låga lednings- och transaktionskostnader. NEFCO har som projektkälla varit till ovärderlig hjälp i att hitta potentiella JI-projekt. TGF är exceptionellt välrustad för

att implementera småskaliga energiprojekt. En nackdel med NEFCO som projektkälla är att flera av NEFCO:s projekt har begränsade möjligheter till att generera utsläppsrätter. TGF har genom alternativa kanaler involverat sig i större och mer kostnadseffektiva projekt. TGF:s omfattande och aktiva engagemang i samköp är särskilt att lovorda. Hitintills bedöms TGF:s resultat vara i linje med dess förväntningar. TGF har för dess deltagare medfört värdefulla erfarenheter.

Den 27 augusti hade TGF kontrakterat förvärvet av 4,64 miljoner ton CO₂e, vilket är 81% av fondens nominella kapital. Kontrakten fördelas mellan fem ERPA-avtal (Emission Reduction Purchase Agreement) och 14 optionsavtal. Investerare är generellt nöjda med prisnivån och fördelningen av teknikval i portföljen. Även om utvecklingen av portföljen anses lovvärd är de flesta investerare missnöjda över den något långsamma utvecklingen av portföljen. Genuin oro över riskerna och osäkerheterna gällande volym och tidpunkt för leverans av utsläppsrätterna har förekommit. Översiktlig och tillgänglig information angående volym, leverans och andra viktiga parametrar bör kommuniceras till investerare på ett mer standardiserat sätt. Det finns externa omständigheter som förklarar mycket när det gäller utvecklingen av projektportföljen. Samtidigt verkar det som om en del II-möjligheter har missats på grund av förseningar i operationaliseringen av TGF samt fördröjningar i beslutsfattandet i TGF.

Kunskapsspridning och kapacitetsuppbyggnad är viktiga mål för TGF. Genom sin blotta existens bidrar TGF till att både sprida kunskap och till att bygga kapacitet. Under tidiga år som enbart offentligt finansierad fond var tonvikten på kapacitetsbyggnad. De erfarenheter som har byggts upp med TGF har varit till gagn för NEFCO:s nätverk och partnerskap, världlands myndigheter, lokala projektutvecklare, institutioner, nordiska, internationella och lokala konsulter, och osckå för nordiska teknologiföretag och det internationella II samfundet.

Framöver måste TGF fokusera sina ansträngningar på att fullborda sin portfölj. Speciellt måste uppmärksamhet riktas mot aktiviteterna i Ryssland och Ukraina. Parallellt med arbetet att kontraktera nya projekt är det viktigt att övervaka utvecklingen i de redan kontrakterade och implementerade projekt, samt att stödja implementering av dem. Kontinuerlig ändamålsenlig uppföljning och övervakning av tillgångarna och de strategiska valen är centrala för att TGF skall bibehålla sin kapacitet, som behövs för att vara framgångsrik under de kommande kritiska månaderna och åren.

List of abbreviations

AAU	Assigned Amount Unit
BASREC	Baltic Sea Region Energy Co-operation
BSR	Baltic Sea Region
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DEPA	Danish Environmental Protection Agency
DFP	Designated Focal Point
DOE	Designated Operational Entity
EBRD	European Bank for Reconstruction and Development
ERPA	Emission Reductions Purchase Agreement
ERU	Emission Reduction Unit
ERUPT	Emission Reduction Unit Procurement Tender
EU ETS	EU Emissions Trading Scheme
EU	European Union
EUA	EU Allowance
Finnder	Finnish Carbon Procurement Programme
GHG	Greenhouse Gas
GSN	GreenStream Network Ltd.
IC	Investors' Committee
IET	International Emissions Trading
ITL	International Transaction Log
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
LoA	Letter of Approval
NEFCO	Nordic Environment Finance Corporation
NIB	Nordic Investment Bank
OA	Option Agreement
OG	Operating Guidelines
PDD	Project Design Document
PIN	Project Idea Note
PPP	Public-Private Partnership
RoP	Rules of Procedure
STEM	Swedish Energy Agency
TA	Technical Assistance
TG	Testing Ground
TGA	Testing Ground Agreement
TGF	Testing Ground Facility
UNFCCC	United Nations Framework Convention on Climate Change