VALIDATION REPORT

Rotem Amfert Negev

The Rotem Amfert Negev (RAN) Natural Gas Fuel Switch Project

SGS Climate Change Programme
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Date of Issue:	**Project Number:**
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Project Title:	
The Rotem Amfert Negev (RAN) Natural Gas Fuel Switch Project	
Organisation:	**Client:**
SGS United Kingdom Limited	Rotem Amfert Negev
Publication of PDD for Stakeholders Consultation	
Commenting Period:	25th December 2007 to 23rd January 2008
First PDD Version and Date:	Version 1, August 2007
Final PDD Version and Date:	Version 7, dated 07/12/2008

Summary:

Rotem Amfert Negev Ltd.has commissioned SGS to perform the validation of the project: The Rotem Amfert Negev (RAN) Natural Gas Fuel Switch Project.

Methodology used: AMS III B

Version and Date: Version 12 EB35

The scope of the validation is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. SGS has employed a risk-based approach in the validation, focusing on the identification of significant risks for project implementation and the generation of CERs.

The report is based on the findings of document reviews, the stakeholder consultation process and responses from the project participants to the findings raised in this report.

The report and the annexed validation describes a total of 13 findings which include:

- 3 Corrective Action Requests;
- 10 New Information Requests; and

All findings have been closed out satisfactorily and project will be recommended to the CDM Executive Board with a request for registration.

Subject:		
CDM Validation		
Validation Team:		
Nikunj Agarwal – Lead Assessor Avi Sadikov – Local Assessor		☒ No Distribution (without permission from the Client or responsible organisational unit)
Technical Review:	**Trainee Technical Reviewer:**	
Date: 03-07-2008 & 16-12-2008 Name: Vikrant Badve	Name: N/A	☐ Limited Distribution
Authorised Signatory:		
Name: Siddharth Yadav Date: 18th December 2008		☐ Unrestricted Distribution

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Abbreviations

RAN	Rotem Amfert Negev
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CO_2	Carbon Dioxide
SGS	SGS United Kingdom Ltd
DNA	Designated National Authority
DOE	Designated Operational Entity
KP	Kyoto Protocol
GHG	Greenhouse Gas(es)
IPCC	Intergovernmental Panel on Climate Change
MP	Monitoring Plan
NIR	New Information Requests
ODA	Official Development Assistance
PP	Project Proponent
HFO	Heavy Fuel Oil
ISHC	International Stakeholder Consultation
NG	Natural Gas
PE	Project Emissions
PDD	Project Design Document
UNFCCC	United Nations Framework Convention for Climate Change
CV	Calorific Value
DR	Document Review
EF	Emission Factor
HCA	Host Country Approval
MoM	Minutes of Meeting

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Annexes:

1. Validation Opinion

SGS United Kingdom Ltd has been contracted by Rotem Amfert Negev to perform a validation of the project: The Rotem Amfert Negev (RAN) Natural Gas Fuel Switch Project in Israel.

The Validation was performed in accordance with the UNFCCC criteria for the Clean Development Mechanism (CDM) and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

SGS reviewed of the project design documentation, using a risk based approach and conducted follow-up interviews.

By doing the fuel switch in the dryers from heavy fuel oil (HFO) to natural gas the project activity will result in reductions of greenhouse gas emissions that are real, measurable and give long-term benefits to the mitigation of climate change.

In our opinion, the project meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria. The project correctly applies methodology AMS III B version 12. It is demonstrated that the project is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

The total emission reductions from the project are estimated to be 189,650 t of CO2e over a 10 year crediting period, averaging 18,965 t of CO2e annually. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achieved given the underlying assumptions do not change.

The project will hence be recommended by SGS for registration with the UNFCCC.

Signed on Behalf of the Validation Body by Authorized Signatory

Signature: 

Name: Siddharth Yadav

Date: 18th December 2008

2. Introduction

2.1 Objective

Rotem Amfert Negev has commissioned SGS to perform the validation of the project: The Rotem Amfert Negev (RAN) Natural Gas Fuel Switch Project with regard to the relevant requirements for CDM project activities. The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, the monitoring plan (MP) and the project's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of Certified Emission Reduction (CER). UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM rules and modalities and related decisions by the COP/MOP and the CDM Executive Board.

2.2 Scope

The scope of the validation is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. SGS has employed a risk-based approach in the validation, focusing on the identification of significant risks for project implementation and the generation of CERs.

The validation is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

2.3 GHG Project Description

The Rotem Amfert Negev (RAN) Natural Gas Fuel Switch Project CDM project is a small scale CDM project which leads to GHG reductions in switching from primary use of HFO to Natural Gas (NG). Therefore The RAN Fuel Switch project will switch the fuel the plant uses in its dryers from heavy fuel oil (HFO) to natural gas. The project will switch the burners in the plant's drier dryers to operate on natural gas.

Baseline scenario:

Continuation of current practice – combustion of HFO

Project Scenario:

The project activity changes the primary fuel on which the factory operates from heavy fuel oil (HFO) to natural gas (NG).

Leakage:

As per the methodology AMS III B version 12, No leakage is to be considered.

Environmental & Social Impacts:

Due to the use of a low-carbon fuel such as natural gas, the project shall not only achieve reductions in GHG emissions but also result in the reduction of other air pollutants such as SOx, NOx and particulate matter.

2.4 The Names and Roles of the Validation Team Members

Name	Role	Affiliate
Nikunj Agarwal	Lead Assessor	SGS India
Avi Sadikov	Local Assessor	SGS Israel

3. Methodology

3.1 Review of CDM-PDD and Additional Documentation

The validation is performed primarily as a document review of the publicly available project documents. The assessment is performed by trained assessors using a validation protocol.

A site visit is usually required to verify assumptions in the baseline. Additional information can be required to complete the validation, which may be obtained from public sources or through telephone and face-to-face interviews with key stakeholders (including the project developers and Government and NGO representatives in the host country). These may be undertaken by the local SGS affiliate. The results of this local assessment are summarized in Annex 1 to this report.

3.2 Use of the Validation Protocol

The validation protocol used for the assessment is partly based on the templates of the IETA / World Bank Validation and Verification Manual and partly on the experience of SGS with the validation of CDM projects. It serves the following purposes:

- it organises, details and clarifies the requirements the project is expected to meet; and
- it documents both how a particular requirement has been validated and the result of the validation.

The validation protocol consists of several tables. The different columns in these tables are described below.

Checklist Question	Ref ID	Means of verification (MoV)	Comment	Draft and/or Final Conclusion
The various requirements are linked to checklist questions the project should meet.	Lists any references and sources used in the validation process. Full details are provided in the table at the bottom of the checklist.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (Y), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). New Information Request (NIR) is used when the validation team has identified a need for further clarification.

The completed validation protocol for this project is attached as Annex A.12 to this report

3.3 Findings

As an outcome of the validation process, the team can raise different types of findings

In general, where insufficient or inaccurate information is available and clarification or new information is required the Assessor shall raise a **New Information Request (NIR)** specifying what additional information is required.

Where a non-conformance arises the Assessor shall raise a **Corrective Action Request (CAR).** A CAR

is issued, where:

I. mistakes have been made with a direct influence on project results;

II. validation protocol requirements have not been met; or

III. there is a risk that the project would not be accepted as a CDM project or that emission reductions will not be verified.

The validation process may be halted until this information has been made available to the assessors' satisfaction. Failure to address a NIR may result in a CAR. Information or clarifications provided as a result of an NIR may also lead to a CAR.

Observations may be raised which are for the benefit of future projects and future verification or validation actors. These have no impact upon the completion of the validation or verification activity.

Corrective Action Requests and New Information Requests are raised in the draft validation protocol and detailed in a separate form (Annex A.3). In this form, the Project Developer is given the opportunity to "close" outstanding CARs and respond to NIRs and Observations.

3.4 Internal Quality Control

Following the completion of the assessment process and a recommendation by the Assessment team, all documentation will be forwarded to a Technical Reviewer. The task of the Technical Reviewer is to check that all procedures have been followed and all conclusions are justified. The Technical Reviewer will either accept or reject the recommendation made by the assessment team.

4. Validation Findings

4.1 Participation Requirements

The host Party for this project is Israel. Israel has ratified KP on 15th March 2004. Letter of Approval was missing, so CAR 1 was raised for clarification. The PP provided the letter dated 11th December 2007 issued by DNA of Israel. The same was checked for completeness and strictly following CDM requirements. LOA was accepted and CAR 1 was closed out.
No Annex I Party has been identified in the PDD and therefore no further Letter of Approval was available. It is observed that the CDM EB has agreed that the registration of a CDM project activity can take place without an Annex I Party being involved at the stage of registration although it should be noted that before CER can be transferred to an Annex I Party, a Letter of Approval will need to be submitted.

4.2 Project Design

The Project Design Document (PDD) was designed as per version 3 of CDM-SSC-PDD template and found to be correct.

NIR 2 was raised to request exact coordinates of project activity. These were provided by PP and incorporated in the revised PDD, hence NIR 2 was closed out.

NIR 3 was raised asking project proponent to provide any documentary evidence that the present project technology will not be substituted or replaced by the more efficient technologies during the crediting period. Project proponent has assured that project technology will not be substituted or replaced by more efficient technology during the crediting period and the letter of undertaking for the same has also been obtained from the project proponent. This was accepted and hence NIR 3 was closed out.

NIR 4 was raised as there was no detail of extensive initial training for the project Activity in the PDD. In response of this NIR project proponent replies that the Initial training for the project activity was provided by the supplier and the training Schedule for the training programme has been submitted to DOE.

The same has been verified by interviewing the plant personnel during site visit; hence NIR 4 was closed out.

The starting date of the project activity was not clear in the PDD version 1 and NIR 10 was raised, In response to this NIR, the project proponent provided the Gas Contract dated 25/03/2008, which was checked and found satisfactory, hence 25th March 2008 was accepted as the start date of the project activity, so the NIR 10 was closed out.

NIR 5 was raised such as to ask the PP about the proof for no ODA for the project activity, in response of this NIR PP provides the letter of undertaking stating No ODA were used for the project activity and the same was discussed with the PP during site visit, hence NIR 5 was closed out.

The project boundary given in the PDD was checked during site visit by the local assessor and found satisfactory.

4.3 Eligibility as a Small Scale Project

The implementation of the project activity results less than 60 kt CO_2 equivalents, as specified in Annex-II “Simplified Modalities & Procedures for Small Scale CDM Project Activity. Hence it is accepted that the project activity is a small scale CDM project activity.

4.4 Baseline Selection and Additionality

Project uses AMS III.B which does not specify how to choose baseline scenario. NIR 6 were raised to clarify identification of baseline scenario and to provide evidence that Fuel Switch to NG without CDM is not most likely baseline scenario. In the first instance PP explained use of "Combined tool to identify the baseline scenario and demonstrate additionality" in detail. PP decided to use "Combined tool to identify the baseline scenario and demonstrate additionality", which can be applied to small scale projects. The part of the tool

that is for the selection of the baseline scenario (Step 1: Identification of alternative scenarios) was exercised; for Step 2: (Barrier analysis); for Step 3: (Investment analysis).

The alternatives for the project activity are identified as:

1) Continuation of current practice – using HFO
2) Fuel switch – natural gas, without the CDM component
3) Fuel switch – natural gas, with CDM
4) Fuel switch to diesel

Alternatives 1 & 4 are the commonly used fuels in Israel. There are sufficient competent people in the region with the knowledge of how to use HFO and diesel in dryers. The factory has to manage only its HFO / diesel supply inventory and place orders for deliveries as needed. HFO and diesel can be ordered from any one of a number of companies and is readily available, meaning no loss of production, hence no barriers were found to alternatives 1 & 4.

This project is one of the first of its kind to be implemented in Israel in the private sector. There are only two other private users of natural gas in Israel. The first, the Ashdod Refineries, began using natural gas in November 2005, while still a government-owned company. Although it was subsequently privatized in August 2006, the decision to convert to natural gas was made when it was still government-owned, and therefore its considerations were different than those of a private company.

The second private user of natural gas in Israel, American Israel Paper Mills plant, began using natural gas in late 2007. AIPM's conversion to natural gas, however, is a registered CDM project, and therefore the plant's decision was based in large part on the financial incentives provided by the CDM. As this is a CDM project, it cannot be taken into account when determining whether the use of natural gas is common practice in the Host Country.

The plant had to invest in an extensive training program for all employees who are involved in production, operation and maintenance and who will work with the natural gas. The training program involves theoretical and practical training and includes an in-class course and field training, with a practical field test that each employee must pass. Total training for all the plant's employees who work in production, operations and maintenance requires the equivalent of 595 days of training (e.g. a training course for the plant's engineers is 5 days long and the plant has fourteen engineers that must complete this training, for a total of 70 days of training). The RAN plant had to hire outside experts to develop and implement the training program. The Israel Electric Company, the largest company of engineers in Israel, was contracted to carry out the training of the plant's engineers, while Shalhevet was contracted to train engineers and all other employees.

Shalhevet, a separate company from the other contracted suppliers, was hired especially in order to train RAN employees for the use of natural gas. This training was necessitated due to the fact that the use of natural gas entails safety hazards, as the piping passes through the entire plant (as opposed to HFO which was confined to the facility), the gas is flammable and does not have an odor. For these safety reasons a dedicated company for the training was needed to perform all of the training for RAN's employees towards the natural gas fuel switch. Additionally, welders at facilities using natural gas require special training and certification. The RAN plant is required to hire specially trained welders who have this certification, in addition to the training that must be completed for its current employees.

Without the specialized training, there would not be trained personnel to implement the natural gas fuel switch CDM project or to maintain the equipment and ensure continued levels of productions. The RAN plant was required to invest capital and manpower hours to train its employees how to use the new technology – natural gas. It is clear that the project activity faces a technological barrier in the lack of trained personnel to implement and maintain the project activity. Based on the discussion above it was concluded that scenarios 2 & 3 face the technological and uncertainty barriers.

In addition to common practice and technological barriers, the project faces barriers due to uncertainty in fuel supply. This uncertainty is due to: delays in the timetable of when the natural gas will be available; limited, problematic suppliers in the Host Country – which is especially problematic in the event that a new contract must be negotiated due to supply problems; increase in company's fixed costs in a competitive industry, which will make it difficult to reduce its operating margin.

Relevant barriers i.e. technological barriers and other barriers have been checked in local assessment audit and found to be correct. These are barriers to prevailing practice and other barriers. PP´s argumentation that

continuing to use HFO would not have required the time and effort that RAN has invested in the project and the barriers that it has faced were checked and found to be correct.

It has been thoroughly checked that RAN is one of the first private companies in Israel to develop plans to switch to natural gas (prevailing practice barrier) the same has been verified with the document named Official publication, which says that American Israel Paper is the first company in Israel to go for natural gas. The American Israel Paper Mill was registered with CDM – EB for fuel switch project, It has been checked with CDM website also that there is no other CDM project for natural gas switch after American Israel Paper Mill project thus it is accepted that the project activity is one of first of its kind in this sector. A letter from the chief economist for Israel's Natural Gas Authority, an impartial governmental body, was provided in Annex 6 to the PDD in order to further substantiate the status of natural gas use by private entities in Israel, and to demonstrate that this is not common practice.

It has been thoroughly checked that RAN even had to petition the Israeli government to alter its plans for pipeline trace and therefore change its National plan 37. Costs and technical data have been checked and cost estimation was confirmed. Further use of HFO as primary fuels would not face regulatory barrier.

Uncertainty barrier was likewise scrutinized and all statements with it (availability of NG, no other suppliers etc.). Therefore the baseline scenario for the project activity was demonstrated in a transparent manner and Continuation of current practice – i.e. combustion of HFO is accepted as baseline scenario; also it is economically best alternative available with project proponent (see the table below).

Based on the above discussion, it was concluded that project activity was not the baseline scenario.

Combined tool to identify the baseline scenario and demonstrate additionality" enables selection of alternatives with barriers, only alternatives with barriers which are not prohibitive underwent step 3 of the tool. Thus alternatives 1 and 4 were considered for financial analysis in order to identify the economically best alternative available to the project proponent (see table below):

Year	Month	Refinery Price of HFO, 2% Sulphur USD/Tonne	Refinery Price of Diesel USD/Tonne
	January	144.86	277.17
	February	160.47	294.06
	March	156.38	283.16
	April	160.45	303.93
	May	166.84	318.25
	June	190.87	353.38
2004	July	172.72	333.19
	August	176.31	374.10
	September	173.83	389.11
	October	177.06	448.31
	November	210.64	510.95
	December	175.57	480.63
2005	January	170.07	409.61
	February	189.39	438.13
	March	201.06	473.30
	April	231.90	508.05
	May	247.35	490.02
	June	234.56	454.57
	July	277.54	537.27
	August	266.89	532.02
	September	287.76	600.75
	October	334.85	618.95
	November	324.16	578.09

		December	292.78	524.73
		January	284.12	530.21
		February	330.31	577.54
		March	332.32	553.59
		April	327.84	601.80
		May	340.61	660.35
	2006	June	338.26	650.01
		July	322.21	657.52
		August	348.98	647.93
		September	325.19	676.22
		October	267.31	560.96
		November	270.99	560.21
		December	267.78	578.35
	Average		**246.67**	**494.07**

The analysis of the prices listed in the table above indicates that there is an enormous difference between the price of HFO and diesel.

Using the above average price of HFO and diesel, and calculating the amount of diesel that would have been required by the RAN plant was calculated using the net calorific value (NCV) provided by the IPCC in its 2006 Guidelines for National Greenhouse Gas Inventories, the costs of Alternative 1 were calculated to be 5444918 USD and the costs of Alternative 4 were calculated to be 10246324 USD.

Sensitivity analysis shows that if the price of HFO increases by 10%, then Alternative 1 is 5989410 USD and price of Alternative 4 is 10246324 USD, and if the price of Diesel falls by 10%, then Alternative 1 is 5444918 USD and the price of Alternative 2 is 9221692 USD.

The Combined Tool was used for the identification of baseline scenario for the project activity as discussed above. In detail it was checked that different steps within the Combined tool are applied correctly and the correct scenarios were considered for baseline scenario determination.

Therefore NIR 6 was closed out.

Demonstration of project's additionality is based on the identified barriers as mentioned under identification of baseline scenario. It was demonstrated in section B.5 of the SSC PDD using the options provided under attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM Project activities.

The project activity was shown additional based on the Technological Barriers supporting with the Prevailing Practise Barriers and the other barriers. CAR 7 and CAR 8 were raised such as to ask the project proponent the supporting documents regarding the technological barriers and the prevailing practise barriers. The technological barriers faced by the project activity are:

- As natural gas is a relatively new fuel in Israel and few facilities have experience in using it, PP does not have the knowledge base for working with natural gas, such as operation and maintenance of equipment and troubleshooting problems. The training program involves theoretical and practical training and includes an in-class course and field training, with a practical field test that each employee must pass. The same was checked by the local assessor during site visit. Total training for all the plant's employees who work in production, operations and maintenance requires the equivalent of 595 days of training (e.g. a training course for the plant's engineers is 5 days long and the plant has fourteen engineers that must complete this training, for a total of 70 days of training).

- The PP had to hire outside experts (Shalhevet) to develop and implement the training program. The Israel Electric Company, the largest company of engineers in Israel, was contracted to carry out the training of the plant's engineers. The contract agreement was checked during site visit and is attached as Annex 1. In addition, welders at facilities using natural gas require special training and certification. The RAN plant is required to hire specially trained welders who have this certification, in addition to the training that must be completed for its current employees.
- In addition to training its employees, the plant has had to contract Annex I country companies to provide the expertise and oversight for the implementation of the project. Wega, a German company, was hired to approve the plant's engineering plans. Bureau Veritas, from Belgium, was hired to perform third-party inspection of all the project equipment. Without this Annex I expertise, the project would not be implemented because there is no local expertise to ensure safe and reliable implementation of the project.

Summary of external companies hired by the RAN plant to implement the fuel-switch project:

Company Name	Country	Responsibility
Wega	Germany	Consultant for plant on its engineering plan (inspection and approval prior to submission to the Natural Gas Authority)
Bureau Veritas	Belgium	Third party inspection of all parts of project equipment (for plant)
Israel Electric Company	Israel	Planning and training of plant's engineers
Shalhevet	Israel	Training for all employees at plant

Prevailing Practice Barriers for the project activity:

The project activity is one of the first of its kind to be implemented in Israel. The same was verified with the Letter from Natural Gas Authority about use of Natural gas in Israel, attached in the folder Annex 1, which states that there are only two other private users of natural gas in Israel, the Ashdod Refineries, which although privatized in August 2006, began using natural gas in November 2005 when it was still a government-owned company, and the American Israel Paper Mills plant, which has been developed as a CDM project. The same was verified by the Official publication from the Israeli Ministry of Infrastructure from August 2007 which shows that only one private company in Israel, American Israel Paper Mills uses the natural gas, hence CAR 7 and 8 were closed out.

The Other Barriers (Uncertainty: Fuel Availability) for the project activity are:

Potential uncertainty with fuel supply from Egypt

- Public opposition to natural gas business with Israel – the same was cross verified by the DOE with the media articles.
- Security problems in the region – the same was cross verified by the DOE with the media articles and U.S. State Department Report for 2006 (http://www.state.gov/s/ct/rls/crt/2006/82733.htm
- If gas supply fails or is delayed, RAN will need to use diesel as the backup fuel, or revert to using HFO, thus losing its investment on the project
- The first potential natural gas supplier is Eastern Mediterranean Gas (EMG), whose natural gas is from Egypt. Although the Israeli and Egyptian governments are in negotiations, there has been opposition in Egypt to a deal with Israel to supply natural gas, and the same was verified with web link http://findarticles.com/p/articles/mi_kmafp/is_200405/ai_kepm475192 last accessed September 23, 2008, http://weekly.ahram.org.eg/2006/807/re52.htm. Accessed September 23rd 2008.
- It is unclear whether the supplier will be able to meet RAN's demand for natural gas. According to recent newspaper reports,

http://career.themarker.com/tmc/article.jhtml?ElementId=skira20080323_93321&log=true(last accessed on September 23rd, 2008) updated forecasts show that Israel's new natural gas delivery system does not have enough capacity to meet expected demand, due to the fact that both underwater and overland pipes are too narrow. The limited capacity, coupled with the Israel Electric Corporation's intention to significantly increase its natural gas consumption, could disrupt the gas supply to private industrial users such as RAN.

Other problematic suppliers in the region

- Yam Tethys supplies all contracted in Israel and most of the Yam Tethys gas supply has been secured by the other companies through contracts
- British Gas supplies will not be possible until 2011 because of the political reasons – the same was cross verified by the DOE with the media articles

The PP faces uncertainty regarding the availability of the natural gas it has purchased, which can affect the company's production schedule and economic viability. Gas contracts signed are also take-or-pay contracts, which mean that the consumer and the supplier are locked into the contract for a specific amount of time. This creates a disadvantage for RAN compared to the current HFO consumption. In the event that RAN opts not to use the gas, for whatever reason, it must still pay the gas supplier for the majority of the contracted amount. The same was checked with the 'take or pay' contract.

Local assessor also checked that the local government does not force the project proponent to use natural gas as fuel; the details regarding the local laws are available on www.mni.gov.il Thus it is accepted that the project activity is a voluntary initiative by the project proponent.

PP views CDM revenue as a sound and stable source of income, which will alleviate a portion of the risk the company faces in the realization of the project: investment of capital in training prior to certainty about gas delivery; production losses due to the retrofit of the plant; and fuel supply risks in the future. The CDM revenues provide support to the RAN plant in the face of the numerous risks that the introduction of natural gas poses.

PP was also willing to confront the technological difficulties and face problems raised by the risks associated with the project in order to publicize in the local Israeli market as well as among its European clients, the commitment and involvement RAN has taken upon itself by taking a leadership role in the Israeli industry on the issue of global warming and climate change mitigation.

After the close assessment and analysis of the barriers wherein technological barriers and other barriers are the main barrier supported by prevailing practice barriers the project activity was found additional.

CDM Consideration was checked as per EB 41 Annex 46. CDM was considered on 3rd May 2005 and PP start works towards the implementation of the project in September 2006, Examination of the prospective agreement to purchase natural gas form British gas was made on December 2006, first version of the PDD dated August 2007 was published for stake holder consultation for December 2007 to January 2008, and the gas contract was made in March 2008, the project activity is yet not commissioned and is expected to be commissioned in January 2009, hence based on the above discussion it was concluded that CDM was seriously considered.

4.5 Application of Baseline Methodology and Calculation of Emission Factors

The project activity uses the approved baseline methodology AMS III B version 12. As approved methodology only requires that Project activity emissions consist of those emissions related with the use of fossil fuel after the fuel switch and no equations are contained in this approved methodology,
Project emission were calculated according to the methodology's instruction:
PE = [Fuel consumption in project scenario] * [Emission Coefficient of each fuel; net CV and OF.]

$$BE_{\text{per unit output}} = \frac{FC_{BL,HFO} * NCV_{HFO} * EF_{HFO}}{P_{output,BL}}$$

ER = BE – PE

NIR 9 was raised to provide detailed spreadsheet for calculation of BE, PE and ER. The same has been provided by PP, but detailed explanation on emission reduction was missing. So, a new sheet with detailed emission reduction values was submitted added by PP. hence NIR 9 was closed out.

EF used in baseline and PE calculation for HFO, diesel were taken from IPCC data and found to be correct.

4.6 Application of Monitoring Methodology and Monitoring Plan

Monitoring Methodology in AMS III.B is described very generally indicating that

(a) Monitoring of the fuel use and output for an appropriate period (e.g., a few years, but records of fuel use may be used) prior to the fuel switch being implemented - e.g. coal use and heat output by a district heating plant, liquid fuel oil use and electricity generated by a generating unit (records of fuel used and output can be used in lieu of actual monitoring);

(b) Monitoring fuel use and output after the fuel switch has been implemented - e.g. gas use and heat output by a district heating plant, gas use and electricity generated by a generating unit.

In the case of coal, the emission coefficient shall be based on test results for periodic samples of the coal purchased if such tests are part of the normal practice for coal purchases.

Monitoring plan was provided fulfilling the requirements of AMS III.B which specifies the parameters needed to be monitored. These are fuel consumption and product output for both baseline and project scenarios, of the energy generation process.
During site visit the monitoring information provided in Annex 4 was checked: Monitoring plan QA/QC procedures and training records were reviewed.
The procedures in place for data acquisition, data processing, data storage and QA/QC were discussed and checked during site visit as well clear definition of roles and responsibilities for implementation of monitoring plan were discussed.
Respective scopes for procedures and responsibilities have been covered. The same needs to be cross checked during the verification by the DOE.

4.7 Choice of the Crediting Period

It is the future project and expected to commission in January 2009. The project activity was started on 25th March 2008 which was the date of the natural gas contract. The expected starting date of crediting period is written in PDD as 01/01/2009. The project activity uses the fixed crediting period of 10 years.

4.8 Environmental Impacts

As per host country regulations of Israel an EIA is not required. NIR 11 was raised for the same, in response of this NIR PP provides the host country regulations from which it was confirmed the EIA is not required for the project activity, hence this NIR was closed out.

4.9 Local Stakeholder Comments

The stakeholders' consultation was conducted by organizing a public meeting in Hura on 03/09/2007. The main stakeholders identified in the project activity were local NGO, Sustainable Negev and invitations were sent to NGOs, other factories in the area and local residents. Representatives from Negev towns, Israeli NGOs and other stakeholders, such as employees of neighbouring factorieslocal residents, NIR 12 was raised to ask the project proponent for the media used for the stake holder consultation. In response of this NIR PP provides the copy of invitation letter which was checked and found satisfactory, hence this NIR was closed out.

NIR 13 was raised such to ask the project proponent about the MoM of the stake holder consultation, in response of this NIR PP provides the MoM of the meeting which were checked and cross verified during stake holder consultation meeting at site visit and found satisfactory, hence this NIR was closed out.

5. Comments by Parties, Stakeholders and NGOs

In accordance with sub-paragraphs 40 (b) and (c) of the CDM modalities and procedures, the project design document of a proposed CDM project activity shall be made publicly available and the DOE shall invite comments on the validation requirements from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available. This chapter describes this process for this project.

5.1 Description of How and When the PDD was Made Publicly Available

The Project Design Document for this project was made available on the SGS website http://www.sgsqualitynetwork.com/tradeassurance/ccp/projects/project.php?id=408 and was open for comments from 25-*12-2007* until 23-*01-2008*. Comments were invited through the UNFCCC CDM homepage

5.2 Compilation of all Comments Received

Comment Number	Date Received	Submitter	Comment
0	NA	NA	NA

5.3 Explanation of How Comments Have Been Taken into Account

No Comments Received

6. List of Persons Interviewed

Date	Name	Position	Short Description of Subject Discussed
17/01/2008	Mr. Alon Berlinsky	Industrial & control engineer	Additionality and Monitoring Plan and Applicability of the methodology.
17/01/2008	Mr. Shlomo Glide	Process Engineer	
17/01/2008	Mr. Yonatan Shtibel	Head Business Development	About the Project Description and Stake holder Consultation
17/01/2008	Mr. Fuad Diab	CDM project manager	About the Project Description, Additionality and baseline
17/01/2008	Joseph Shaashua	Project Manager	About the data Achieving, QA/QC and Monitoring Plan
17/01/2008	Ms. Mor Atlas	Consultant	About the Additionality and baseline

7. Document References

Category 1 Documents (documents provided by the Client that relate directly to the GHG components of the project, (i.e. the CDM Project Design Document, confirmation by the host Party on contribution to sustainable development and written approval of voluntary participation from the designated national authority):

/1/ Modalities of Communication Dated 24th July 2008
/2/ Host Country Approval Dated 11th December 2007
/3/ Emission Reduction Calculation Sheet
/4/ Supporting Documents for Additionality related to Technological Barriers and Prevailing Practise Barriers as Annex 1
/5/ Feasibility Report for CDM Consideration
/6/ PDD version 01 dated 01/08/2007 (Web hosted)
/7/ PDD version 02 dated 31/01/2008
/8/ PDD version 03 dated 01/06/2008
/9/ PDD version 04 dated 07/07/2008
/10/ PDD version 05 dated 24/07/2008
/11/ PDD version 06 dated 28/07/2008
/12/ PDD version 07 dated 07/12/2008

Category 2 Documents (background documents used to check project assumptions and confirm the validity of information given in the Category 1 documents and in validation interviews):

/13/ Media for Stake holder Consultation
/14/ Proof for Starting date - The work permit to IEC (Israel electrical company)
/15/ MoM for Stake Holder Consultation - Copy of invitation
/16/ Letter for No ODA
/17/ Letter for no Technology substitution

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A.1 Annex 1: Local Assessment

This checklist is designed to provide confirmation of in-country data and information provided in the Project Design Document for The Rotem Amfert Negev (RAN) Natural Gas Fuel Switch Project.

It serves as a "**reality check**" on the project that is completed by a local assessor from SGS Israel

Issue	**Findings**	**Source/Means of Verification**	**Further Action / Clarification / Information Required?**
Status of the HCA process to be checked with supporting documentation.	Ministry of Environmental protection – Letter of approval dated: 11.12.07 – As authorized representative of designated national authority (DNA).	Letter of Approval (LoA) was obtained from the Host Country DNA for the Rotem Amfert Negev project and was checked from the original copy during the site visit.	Y
Regulatory approval	Please check regulatory approval status to verify that all local / legal requirements have been met Especially check specific requirements to meet NOx emission standard (see PDD p. 10) What are representative NOx emissions for current practise of combustion of HFO	Stack emissions tests shown at site visit r as evidence that RAN plant meets local air emission requirements. Reviewed business license number 04/95 dated: 21.06.1995 Tests of air emissions performed for all 3 production lines numbers: 42, 50 & 70. According to business license emissions of Reviewed Test report # RAN-091-1-0807 Dated: 29.08.07 – For line # 70. SO2 = 500 mg/Nm3 Test report shows: 89 mg/Nm3 NOx = 500 mg/Nm3 Test report shows: 52 mg/Nm3 PM = 75 mg/Nm3	Y

Issue	Findings	Source/Means of Verification	Further Action / Clarification / Information Required?
		Test report shows: 42.6 mg/Nm3	
Socio-economic and environmental well being.	Whether the project activity has the positive contribution towards direct and indirect socio-economic and environmental well being.	The DNA's criteria to determine that a project meets Israel's program for sustainable development were reviewed http://www.sviva.gov.il/Enviroment/Static/Binaries/Articals/cdm_sd_1[1]_1.pdf. These criteria include economic and technological impacts, social impacts and environmental impacts. Reviewed documentation of Comparative Air Emissions of Wind and other Fules to show that natural gas has lower air pollutant emissions (CO_2, SOx, NOx) than petroleum oils, which are the fuels in use prior to the project. The project developer showed evidence of the high number of HFO deliveries by truck to the plant and explained that natural gas is delivered by pipeline instead of by truck and that the project will reduce the number of trucks on the highways. Fewer truck deliveries will improve air quality and reduce traffic congestion.	Y
Stake holder Consultation	Has due account been taken of any stakeholder comments received?	The comments and questions raised in the stakeholders' meeting, which are found in section E.2 of the PDD, were reviewed The project developer explained that all comments and questions received responses (section E.3 of the PDD). The project developer explained that the comments and questions were all pertaining to information and were not questioning or critical of the project. Due account was taken of all comments on 03/09/07.	Y

Issue	Findings	Source/Means of Verification	Further Action / Clarification / Information Required?
ODA	The project shall not make use of Official Development Assistance (ODA), nor result in the diversion of such ODA	A letter from the Head of Business Development – Mr. Yonatan Shtibel has been provided to show that the plant is fully financing the project internally and is not receiving ODA for the project from any governmental or other bodies.	Y
Substitution of Technology with more efficient echnology	It is required to be checked whether the project technology used is likely to be substituted by other or more efficient technologies within the project period.	The project developer explained that the project activity is a fossil fuel switch, meaning that the project's technology is natural gas instead of petroleum oils. The project developer provided evidence that natural gas contracts in the Host Country are for long periods of time, such as 15 years. Newspaper articles were provided as evidence to show that in the Host Country, natural gas contracts are long-term (15-25 years). The Minimum period of the NG contracts is 15 years, which is longer, then the 10 years of the CDM project period. No project technology used is to be substituted.	Y
Debundling of large Projects	The small scale project activity is not a debundled component of a larger project activity	Checked evidence that the RAN plant has not already registered another small scale CDM activity or applied for registration of another small scale CDM project. Reviewed a list of all the projects in Israel (as of the date of validation) that are in the CDM process, taken from the UNFCCC website. The list includes the size of the project, the methodology of each project, the project participants and the location of the project. It has been verified that the RAN plant has not registered another project in Israel.	Y

Issue	Findings	Source/Means of Verification	Further Action / Clarification / Information Required?
Roles & Responsibilty and QA/QC procedure	Detail management structure, roles and responsibility for implementation of the monitiring plan to be discussed and verified.	The project developer explained that because the project has not yet begun there are not yet complete and finalized operations and maintenance (O&M) procedures for the project. ISO certificates presented by RAN: ISO Certificates presented by the plant. ISO 9001:2000 Cert # 33270 Expiry date: 31.01.2008 HACCP Cert # 41789 Expiry date: 31.08.2007 OHSAS 18001 Cert # 38308 Expiry date: 30.01.2010 ISO 14001: 2004 Cert # 41048 Expiry date: 31.05.2009 Operation & maintenance procedures reviewed for aspects of the plant's operations, such as types of calibration at the plant, how fuel deliveries are received and equipment operations. The project developer explained that the O&M procedures for the CDM project will be at the same high level as the current O&M procedures: O&M for Natural Gas (not established yet) will be established during the project operation: Natural gas used will be monitored at a high level according to the standards set by the Natural Gas Authority and the Israel Natural Gas Lines	Y
State of Art technology	Whether the project activity is implementing state-of-the art technology and the project design engineering reflects current good	Mr. Shlomo Glide described the advanced nature of the technology that will be implemented in the project. Israel Electric company will design the project.	Y

Issue	Findings	Source/Means of Verification	Further Action / Clarification / Information Required?
	practices.	Design plans & contract of IEC will be provided. As declared two external companies from Europe have been hired by the plant to ensure that the project uses the best technology and meets good engineering design and best practices. Bureau Veritas has been contracted to check all the equipment for the project to ensure the high quality of equipment and construction. Wega has been contracted to inspect and approve the plant's engineering plan to guarantee good engineering practices for the project. Reviewed the contracts for these external, European companies. Reviewed NG technical specifications for the tender of the construction & technical equipment.	
CDM Modalities	Whether CDM modalities has been considered during the planning stage of the project actvity, to be verified on the basis of the documentary evidence.	The project developer showed the feasibility assessment report for the project was submitted in May 2005. The project is still in the planning phase and construction has not yet begun. The estimated start date of the project is August 2008 as per plant manager declaration.	Y
Additionality and local Regulations	How it was checked by audit team that the present project is a voluntary activity by the project proponent and no government law or local authority regulations forced PP to use NG.	The same was checked by the local assessor as he was fully aware with the local legislation and also PP has submit media articles in support of problem using natural gasses in Israel, however the local legislation for the same can be cross checked with www.mni.gov.il	Y

Issue	Findings	Source/Means of Verification	Further Action / Clarification / Information Required?

A.2 Annex 2: Validation Protocol

Table 1 Participation Requirements for Clean Development Mechanism (CDM) Project Activities (Ref PDD, Letters of Approval and UNFCCC website)

Requirement	Reference	Comments	Conclusion
1. All Parties (listed in Section A3 of the PDD) have ratified the Kyoto protocol and are allowed to participate in CDM projects	Marrakech Accords, CDM Modalities §30	Israel has ratified the protocol on 15th March 2004 and is allowed to participate. The web link is http://maindb.unfccc.int/public/country.pl?country=IL	Y
2. The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3 and be entered into voluntarily.	Marrakech Accords, CDM Modalities §29 and §30	No Annex 1 party has been selected yet. Project can proceed as unilateral project	Y
3. The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof, and be entered into voluntarily	Marrakech Accords, CDM Modalities §29 and §30 Kyoto Protocol Art. 12.2, Marrakech Accords, CDM Modalities §40a	The project activity will contribute to sustainable development. Host Country Approval from Designated National Authority is to be provided by the project proponent.	CAR 1

Requirement	Reference	Comments	Conclusion
4. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days, and the project design document and comments have been made publicly available	Marrakech Accords, CDM Modalities, §40	Yes, the project is listed on UNFCCC website from 25th December 2007 to 23rd January 2008. http://cdm.unfccc.int/Projects/Validation/DB/IQRTEFMFE012DK4YCDZL2F6XNCQO9M/view.html The project was also listed on SGS climate change website from 25th December 2007 to 23rd January 2008. http://www.sgsqualitynetwork.com/tradeassurance/ccp/projects/project.php?id=408 Number of comments received - 0	Y
5. The project design document shall be in conformance with the UNFCCC CDM-PDD format	Marrakech Accords, CDM Modalities, Appendix B, EB Decisions	The PDD is as per the CDM-SSC-PDD version 3 format.	Y
6. The project participants shall submit a letter on the modalities of communication (MoC) before submitting a request for registration	EB-09 F_CDM_REG form	Letter on the Modalities of Communication (MoC) to be submitted by the project proponent, the same will be checked during the site visit.	Site Visit
7. For AR projects, the host country shall have issued a communication providing a single definition of minimum tree cover, minimum land area value and minimum tree height. Has such a letter been issued and are the definitions consistently applied throughout the PDD?		Not applicable	Not applicable

Table 2 PDD

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
A. General Description of Project Activity					
A.1. Project Title					
A.1.1. Does the used project title clearly enable to identify the unique CDM activity?	01	DR	Yes, project title used is clearly enabling to identify the unique CDM activity.	Pending closure of CAR 1	Y
A.1.2. Are there an indication of a revision number and the date of the revision?	01	DR	Yes; The PDD which was web hosted for International stakeholder consultation mentions version 01, dated August 2007.	Y	Y
A.1.3. Is this in consistency with the time line of the project's history?	01	DR	The start date of the project activity is 01/03/2008 and the PDD is dated August 2007. The same is in time line. This will be further checked during the site visit.	Site visit	Y Start date of the project activity is 7th September 2006
A.2. Description of the Project Activity					
A.2.1. Is the description delivering a transparent overview of the project activities?	01	Site Visit	Information regarding the purpose of the project activity, type of technology used and contribution to sustainable development has been described. The same would be cross-checked during the site visit.	Site visit	Y
A.2.2. Is all information provided in compliance with actual situation or planning?	01	DR	The project activity entails switch the HFO used for the dryers to natural gas with the possibility of HFO being used as a backup fuel for times when the natural gas supply is not available.	Site visit.	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
A.2.3. Is all information provided consistent with details provided in further chapters of the PDD?	01	DR	The project activity details as mentioned in the PDD are consistent the same would be cross-checked during the site visit.	Site visit.	Y
A.3. Project Participants					
A.3.1. Is the table required for the indication of project participants correctly applied?	01	DR	The table is applied correctly.	Y	Y
A.3.2. Is all information provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	01	DR	The project proponent for the project is consistent throughout the PDD.	Y	Y
A.4. Technical Description of the Project Activity					
A.4.1. Does the information provided on the location of the project activity allow for a clear identification of the site(s)? Are the latitude and longitude of the site indicated (decimal points)	01	DR	The latitude and longitude of the plant is missing in the PDD.	NIR 2	Y
A.4.2. Do the project participants possess ownership or licenses which will allow the implementation of the project at that site / those sites?	01	DR	The same needs to be checked during the site visit.	Site visit	Y
A.4.3. Is the category(ies) of the project activity correctly identified?	01	DR	Yes, the project comes under Sectoral Scope 1.	Y	Y
A.4.4. Does the project design engineering reflect current good practices?	Description of the Project Activity		The project activity involves switching fossil fuel by retrofit the dryers to operate on natural gas. The same needs to be checked during the site visit and cross-checked with the specifications of the equipment. The technical specifications and Purchase orders for equipments used in the project activity needs to be checked during site visit.	Site Visit	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
A.4.5. Does the description of the technology to be applied provide sufficient and transparent input to evaluate its impact on the greenhouse gas balance and is the explanation how the project will reduce greenhouse gas emission transparent and suitable?	01	DR	The PDD mentions that the project activity involves fossil fuel switch from Heavy Fuel Oil to Natural Gas thus reducing the GHG emissions, the same would be cross-checked during the site visit.	Site visit	Y
A.4.6. Is all information provided in compliance with actual situation or planning as available by the project participants?	01	DR	To be checked during the site visit.	Site visit	Y
A.4.7. Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	01	DR	Pending Site Visit	Pending	Y
A.4.8. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	01	DR	The lifetime of the project activity as mentioned in the PDD is 20 years. Evidence is required that the project technology would not be substituted during the crediting period.	NIR 3	Y
A.4.9. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	01	DR	As per the PDD project requires extensive initial training and maintenance efforts in order to work as presumed during the project period, evidence for the same is to be submitted by the project proponent.	NIR 4	Y
A.4.10. Does the project make provisions for meeting training and maintenance needs?	01	DR	As per the PDD, there is the provision of Training and maintenance during the project period, evidence for the same needs to be verified during site visit.	Site Visit	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
A.4.11. Is a schedule available on the implementation of the project and are there any risks for delays?	01	DR	Discussion on project implementation plan with project participants will be done during site visit.	Site Visit	Y
A.4.12. Is the table required for the indication of projected emission reductions correctly applied?	01	DR	The table has been applied correctly.	Y	Y
A.5. Public Funding					
A.5.1. Does the information on public funding provided conform with the actual situation or planning as presented by the project participants?			As per the PDD, there is no public funding involved in the project activity. Proof in this regard needs to be provided by the project participant.	NIR 5	Y
A.5.2. Is all information provided consist with details provided by further chapters of the PDD (in particular annex 2)?			Pending and NIR 5	Pending NIR 5	Y
A.5.3. In case of public funding from Annex I Parties is it confirmed that such funding does not result in a diversion of official development assistance			To be checked during the site visit. Pending NIR 5	Pending NIR 5	Y
B. Baseline and Monitoring Methodology					
B.1. Choice and Applicability					
B.1.1. Is the baseline methodology previously approved by the CDM Methodology Panel?	01, 02	DR	Yes the project uses an approved simplified methodology AMS IIIB “Switching Fossil Fuels”, version 12. The version is still valid.	Y	Y
B.1.2. Is the baseline methodology the one deemed most applicable for this project?	01	DR	Yes, AMS III B is the most applicable for this project.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.1.3. Is the choice of the methodology correctly justified by the PDD and is the project in conformance with all applicability criteria of the applied methodology?	01	DR	Choice of the methodology is explained in the PDD section B.2, which is applicable with the project activity.	Y	Y
B.2. Project Boundary					
B.2.1. Are all emission sources and gasses related to the baseline scenario, project scenario and leakage clearly identified and described in a complete manner?	01, 02	DR	As per the methodology project boundary is the physical, geographical site where the fuel-switching measure occurs is the RAN plant's dryers. The project boundary is clearly defined in the PDD with the sources of project emissions and leakage.	Y	Y
B.2.2. In case of grid connected electricity projects: Is the relevant grid correctly identified in accordance with EB guidance and the underlying methodology?	01	DR	The project activity does not involves the grid connected electricity projects, the same needs to be cross-checked during the site visit.	Site visit	Y
B.2.3. Are the project's spatial boundaries (geographical) and the project's system boundaries (components and facilities used to mitigate GHGs) clearly defined?	01	DR	Yes, the project boundary is clear in the PDD. The same will be cross checked during site visit.	Site visit	Y
B.3. Identification of the Baseline Scenario					
B.3.1. Does the PDD discuss the identification of the most likely baseline scenario? Does the PDD follow the steps to determine the baseline scenario required by the methodology and is the application of the methodology and the discussion and determination of the chosen baseline transparent?	01, 02	DR	As per the methodology AMS III B The emission baseline is the current emissions of the facility expressed as emissions per unit of output (e.g., kg CO2e/kWh). Emission coefficients for the fuel used by the generating unit before and after the fuel switch are also needed. IPCC default values for emission coefficients may be used.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.3.2. Does the application consider all potential realistic and credible baseline scenarios in the discussion taking into account relevant national and/or sectoral policies, macro-economic trends and political aspirations??	01, 02	DR	The alternatives for the baseline selection under section B.4 in the PDD is not clear. Please provide the supporting documents. Please provide the baseline emission calculation excel sheet.	NIR 6	Y
B.3.3. Is the choice of the baseline compatible with the available data?	01, 02	DR	In the absence of the project activity the existing scenario the use of HFO in the dryers, will remain continue as it is the most plausible baseline scenario. The baseline emission calculations and the data used for calculation have been given in the PDD. The calculation sheet along with the documentary evidence for the data's used needs to be checked. Pending NIR 6	Pending NIR 6	Y
B.3.4. Is conservativeness addressed in the way of identifying the baseline?	01, 02	DR	Pending NIR 6	Pending	Y
B.3.5. Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios?	01, 02	DR	As per the PDD, the most likely baseline is the continuation of the HFO in the dryers.	Y	Y
B.4. Additionality					
B.4.1. Does the PDD clearly demonstrate the additionality using the approach as given by the methodology and by following all the required steps?	01	DR	It is a small scale project and doesn't follow the tool of additionality. However, with reference to the PDD the additionality was demonstrated based on the prevailing practice barrier, technological barriers and other barriers.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.4.2. In case of using the additionality tool: Is the 'Additionality Tool' used in the PDD latest version? If an earlier version has been used, do the changes impact the discussion in the PDD? Are all steps followed in a transparent manner?	01	DR	It is a small scale project and does not follow the tool of additionality. Additionality of the project activity was checked according to the Attachment A to Appendix B of the simplified modalities and procedures for SSC CDM project activities and Annex 34 of EB 35.	Y	Y
B.4.3. Is the discussion on additionality and the evidence provided consistent with the starting date of the project If the project has started before the validation is it discussed how the CDM was taken into account in the decision to go ahead with the project activity			As per section C.1.1 of the PDD version01 the starting date of the project activity is 01/03/2008. Additionality arguments as provided in PDD will be verified during site visit. CDM Consideration will be checked during site visit.	Site Visit	Y
B.4.4. Is the discussion on additionality consistent with the identification all potential realistic and credible baseline scenarios B.4.5. Do the identified alternative include technologies and practices that include outputs (e.g) cement or services comparable with the proposed CDM project activity			The most realistic alternative is the continuation with the HFO usage in the existing facility for dryers, the same will be checked during site visit. To be checked during site visit.	Pending Site Visit	Y
B.4.6. If an investment analysis has been used, has it been shown that the proposed project activity is economically or financially less attractive than at least one other alternative without the revenue from the sale of CERs?			Investment analysis has not been used for the project activity.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.4.7. If a barrier analysis has been used, has it been shown that the proposed project activity faces barriers that prevent the implementation of this type of proposed project activity but would not have prevented the implementation of at least one of the alternatives?			The project activity faces the barrier due to prevailing practice and technological barriers also some other barriers. Please provide the supportive documents for the additionality. • Provide documentary evidence to support the technological barriers. • Please provide the supporting documents for the other barriers mentioned in the PDD.	CAR 7	Y
B.4.8. Has it been shown that the project is not common practice?			The project activity is not a common practice so the proofs in support of prevailing practices barriers should be provided.	CAR 8	Y
B.4.9. Is it demonstrated/justified that the project activity itself is not a likely baseline scenario			The project activity is not a likely baseline scenario. The documents of additionality will be checked at the site visit.	Site Visit	Y
B.5. Application of the Baseline Methodology					
B.5.1. Has the approved methodology been applied correctly for determining **baseline emissions**?	01	DR	The simplified methodology has been correctly applied for determining the baseline emissions. Total baseline emissions are the summation of baseline emissions due to usage of HFO. The baseline emission equations have been correctly applied.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.5.2. Has the approved methodology been applied correctly for determining **project emissions**?	01	DR	The simplified methodology has been correctly applied for determining the project emissions. The project emission equations have been correctly applied	Y	Y
B.5.3. Has the approved methodology been applied correctly for determining **leakage**?	01	DR	As per the methodology AMS IIIB, version 12 there are no leakages associated with the project activity.	Y	Y
B.5.4. Where applicable, has the approved methodology been applied correctly for the **direct calculation of emission reductions**	01	DR	The methodology has been applied correctly for the calculation of emission reductions	Y	Y
B.5.5. Have all the methodological choices been explained, have they been properly justified and are they correct	01	DR	The methodological choices have been properly justified in the PDD.	Y	Y
B.5.6. Are uncertainties in the GHG emissions estimates properly addressed in the documentation?	01	DR	Any uncertainties to the GHG estimation will be checked during the site visit.	Site Visit	Y
B.6. Ex-ante Data and Parameters Used					
B.6.1. Are the data provided in compliance with the methodology?	01	DR	The ex-ante parameters that are mentioned in the methodology are included.	Y	Y
B.6.2. Is all the data derived from official data sources or replicable records and have these been correctly quoted?	01, 02 & 03	DR/SV	To be checked during Site Visit	Pending	Y
B.6.3. Is the vintage of the baseline data correct?	01	DR	The vintage of the baseline data will be checked during the site visit.	Pending	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.7. Calculation of Emissions Reductions					
B.7.1. Has the approved methodology been applied correctly for determining **emission reductions**?	01,02	DR	Yes, the approved methodology been applied correctly for determining emission reductions. Please provide the calculation excel sheet for emission reduction calculation.	NIR 9	Y
B.7.2. Are the emission reduction calculations documented in a complete and transparent manner?	01,02	DR	Yes the ER calculation has been provided in a complete and transparent manner	Y	Y
B.7.3. Have conservative assumptions been used to calculate emission reductions?	01,02	DR	Pending closure of CAR's /NIR's	Pending	Y
B.7.4. Is the projection based on provable input parameter?	01,02	DR	To be checked during site visit.	Site Visit	Y
B.7.5. Is the projection based on same procedures as used for later monitoring or acceptable alternative models?	01,02	DR	Yes the projection is based on same procedures as used for later monitoring	Y	Y
B.7.6. Is the calculation of the emission reduction correct?	01,02	DR	Pending NIR 9	Pending closure of NIR 9	Y
B.8. Emission Reductions					
B.8.1. Will the project result in fewer GHG emissions than the baseline scenario?	01, 02	DR	Yes, project result in fewer GHG emissions than the baseline scenario.	Y	Y
B.8.2. Is the form/table required for the indication of projected emission reductions correctly applied?	01, 02	DR	The table B.6.4 is correctly applied	Y	Y
B.8.3. Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?	01	DR	The projection is in line with the life time of the project activity and the crediting period.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.9. Monitoring Methodology					
B.9.1. Does the monitoring methodology provide a consistent approach in the context of all parameter to be monitored and further information provided by the PDD? Are all parameters and data that is available at validation consistent with the approved methodology	01	DR	Yes the monitoring methodology provides consistent approach for all the parameters to be monitored.	Y	Y
B.9.2. Does the monitoring methodology apply consistently the choice of the option selected for monitoring both of project and baseline emissions?	01	DR	Yes the monitoring methodology consistently applies the choice of option for monitoring the project and baseline emissions.	Y	Y
B.10. Data and Parameters Monitored					
B.10.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for estimation or measuring the emission reductions within the project boundary during the crediting period?	01	DR	Yes, monitoring plan provide for the collection and archiving of all relevant data necessary for estimation or measuring the emission reductions within the project boundary during the crediting period.	Y	Y
B.10.2. Are the choices of project GHG indicators reasonable and in conformance with the requirements set by the approved methodology applied?	01	DR	The project GHG indicators are reasonable and according to approved methodology.	Y	Y
B.10.3. Will it be possible to determine the specified project GHG indicators?	01	DR	The correct implementation of the monitoring concept as well as the verifiability of monitoring data and its accuracy will be checked during the site visit.	Site Visit	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.10.4. Is the information given for each monitoring variable by the presented table sufficient to ensure the verification of a proper implementation of the monitoring plan?	01	DR	The information given for each monitoring variable is sufficient to ensure proper verification of the monitoring plan	Y	Y
B.10.5. Is the information given for each monitoring variable by the presented table sufficient to ensure the delivery of high quality data free of potential for biases or intended or unintended changes in data records?	01	DR	Yes the information provided in Section B.7.1. of PDD ensures high quality data collection. Same will be checked during the site visit	Site Visit	Y
B.10.6. Is the monitoring approach in line with current good practice, i.e. will it deliver data in a reliable and reasonably acceptable accuracy?	01	DR	The monitoring of data will be done accurately with proper instrumentation as mentioned by the project proponent in the PDD but the same should be checked during verification.	Y	Y
B.10.7. Are all formulae used to determine project emission clearly indicated and in compliance with the monitoring methodology.	01, 02	DR	The formula to project emissions has been correctly used and is in compliance with the methodology	Y	Y
B.11. Quality Control (QC) and Quality Assurance (QA) Procedures					
B.11.1. Is the selection of data undergoing quality control and quality assurance procedures complete?			The QA/QC procedures are mentioned in the PDD.	Y	Y
B.11.2. Is the belonging determination of uncertainty levels done correctly for each ID in a correct and reliable manner?	01	DR	Uncertainty of data is will be checked during site visit.	Pending	Y
B.11.3. Are quality control procedures and quality assurance procedures sufficiently described to ensure the delivery of high quality data?	01	DR	All the data are measured using standard instruments and monitored by trained personnel. Data recording and analysis of the captured data will be verified during site visit.	Site visit	Y
B.11.4. Is it ensured that data will be bound to national or internal reference standards?	01	DR	The same needs to be checked during the site visit	Site visit	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.11.5. Is it ensured that data provisions will be free of potential conflicts of interests resulting in a tendency of overestimating emission reductions?	01	DR	Need to check during Site visit	Site Visit	Y
B.12. Operational and Management Structure					
B.12.1. Is the authority and responsibility of project management clearly described?	01	DR	Management structure for the project activity has been described in the PDD. The same needs to be checked during the site visit.	Site visit	Y
B.12.2. Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	01	DR	The same has been described under the section B.7.2 of the PDD, the same would be cross-checked during the site visit.	Site visit	Y
B.12.3. Are procedures identified for training of monitoring personnel?	01	DR	It is mentioned in PDD that the monitoring personnel has been trained for the CDM project activity and same needs to be checked during site visit.	Site Visit	Y
B.13. Monitoring Plan (Annex 4)					
B.13.1. Is the monitoring plan developed in a project specific manner clearly addressing the unique features of the CDM activity?	01	DR	The monitoring plan has been developed specifically for this project activity and is reflecting in section B.7.2 of PDD.	Y	Y
B.13.2. Does the monitoring plan completely describes all measures to be implemented for monitoring all parameter required, including measures to be implemented for ensuring data quality?	01	DR	Yes the monitoring plan describes all the measures for monitoring the data parameters.	Y	Y
B.13.3. Does the monitoring plan provide information on monitoring equipment and respective positioning in order to safeguard a proper installation?	01	DR	Yes the monitoring plan provides details about the equipment that will be used for monitoring.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.13.4. Are procedures identified for calibration of monitoring equipment?	01	DR	Site Visit	Pending	Y
B.13.5. Are procedures identified for maintenance of monitoring equipment and installations?	01	DR	No procedures are identified in the PDD, will be discussed during site visit.	Pending	Y
B.13.6. Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	01	DR	The operational and Management Structure has been provided, the same would be cross-checked during the site visit.	Site visit	Y
B.13.7. Are procedures identified for dealing with possible monitoring data adjustments and missing data allowing redundant reconstruction of data in case of monitoring problems??	01	DR	The same has not been described in the PDD. To be checked during the site visit.	Site visit	Y
B.13.8. Are procedures identified for internal audits of GHG project compliance with operational requirements where applicable?	01	DR	The operational and Management Structure has been provided, the same also mentions about periodic checking by the auditing department. The same would be cross-checked during the site visit.	Site visit	Y
B.13.9. Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	01	DR	The operational and Management Structure has been provided, the same would be cross-checked during the site visit.	Site visit	Y
B.14. Baseline Details					
B.14.1. Is there any indication of a date when determine the baseline?	01	DR	The baseline has been determined in July 2007, as mentioned in the PDD.	Y	Y
B.14.2. Is this in consistency with the time line of the PDD history?	01	DR	The start date of the project activity as mentioned I the PDD version 01 is 01/03/2008 this is in time line with the project activity.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.14.3. Is all data required provided in a complete manner by annex 3 of the PDD?	01	DR	Pending Closure of CARs/NIRs	Pending closure of CARs/NIRs	Y
***C.* Duration of the Project / Crediting Period**					
C.1.1. Are the project's starting date and operational lifetime clearly defined and reasonable?	01	DR	The start date of the project activity is 01st June 2008 as per the PDD version 01 and the operation lifetime is 20 years as described in the PDD. Proof for the starting date is to be submitted by the project proponent.	NIR 10	Y
C.1.2. Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)?	01	DR	The crediting period chosen is fixed crediting period.	Y	Y
C.1.3. Does the project's operational lifetime exceed the crediting period	01	DR	The operational lifetime of the project activity exceeds the crediting period.	Y	Y
D. Environmental Impacts					
D.1.1. Does the project comply with environmental legislation in the host country?	01	DR	As per the PDD, EIA need not be conducted for this project activity because of the current Israel regulation. Documentary evidence needs to be submitted by the project proponent for the same, link provided in the PDD was not opening.	NIR 11	Y
D.1.2. Has an analysis of the environmental impacts of the project activity been sufficiently described?			The project doesn't seems to have any environmental effect as it will use the fuel switch from the HFO to NG which would have generate less emission then in the baseline	Y	Y
D.1.3. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?			There is no EIA require for this project activity as per the guidelines of Govt. of Israel.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
D.1.4. Will the project create any adverse environmental effects?			As per the PDD, the project will not create any adverse environmental effects; the same will be discussed/Checked during the site visit.	Y	Y
D.1.5. Are transboundary environmental impacts considered in the analysis?			There are no possible environmental impacts	Y	Y
D.1.6. Have identified environmental impacts been addressed in the project design?			PDD section D.1 defined environmental concerns of the project.	Y	Y
E. Stakeholder Comments					
E.1.1. Have relevant stakeholders been consulted?			The national stakeholder review mentioned in PDD is clear; the same has to be checked on the site visit.	Site Visit	Y
E.1.2. Have appropriate media been used to invite comments by local stakeholders?			There is not sufficient information about the media used to invite stakeholder meeting, please provide the media used for stake holder meeting.	NIR 12	Y
E.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?			Stakeholder consultation process is not required as per regulation/laws in host country. However the project participant has consulted the local stakeholders as a requirement for CDM project. MoM of the meeting is to be provided by the Project Proponent.	NIR 13	Y
E.1.4. Is the undertaken stakeholder process described in a complete and transparent manner?			Stake holder consultation process is described in the PDD; the same will be cross checked during the site visit.	Site Visit	Y
E.1.5. Is a summary of the stakeholder comments received provided?			Summary of comments is mentioned in PDD.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
E.1.6. Has due account been taken of any stakeholder comments received?			No adverse comment identified in the PDD. Same has to be verified during site visit.	Site Visit	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

References

Reference ID	Title / Description	Comments
1.	PDD, version 1 dated August 2007	Table 2 section A, B, C, D and E
2.	AMS III B version 12	Table 2 section B
3.	UNFCCC website (http://cdm.unfccc.int/index.html)	Table 1, Table section B

* MoV = Means of Verification, DR= Document Review, I= Interview

A.3 Annex 3: Overview of Findings

Findings Overview

Findings from validation of The Rotem Amfert Negev (RAN) Natural Gas Fuel Switch Project.

Each Table below represents a finding from the validation assessment. The findings are numbered consecutively, approximately in the order that they have been identified.
Description of Table:

Type	Findings are either New Information Requests (NIR) or Corrective Action Requests (CAR). CARs are items that must be addressed before a project can receive a recommendation for registration. NIRs may lead to the raising of CARs. Observations are included at the end and may or may not be addressed. They are primarily to act as signposts for the verifying DOE.
Issue	Details the content of the finding
Ref	Refers to the item number in the Validation Protocol
Response	Please insert response to finding, starting with the date of entry.

Rows for comments and further response will be appended to the table until the Findings has been addressed to the satisfaction of the Lead Assessor.
Please Note: This is an open list and more findings may be added as validation progresses.

Date:	08/01/2008			Raised by:	Nikunj Agarwal		
No.:	1	Type:	CAR	Issue:	Participation requirement for CDM	Ref.:	Table 1, Item No.3
Lead Assessor Comment					Date: 08/01/2008		
Please provide the LOA from the DNA of the non-Annex I country (Israel)							
Project Participant Response:					Date: 15/01/2008		
The LoA for the RAN project from the Israel DNA was shown to and reviewed by the local assessor during the site visit. The letter is attached below:							
Acceptance and Close out by Lead Assessor:					Date: 14/02/2008		
Information Provided: The LoA from Israel DNA has been provided Information Verified: LOA was checked for the date and was checked for the completeness and strictly following CDM requirements						Verified Document Reference: Host Country Approval dated 11th December 2007	
Reasoning for acceptance and close out: A letter of approval from the Israeli DNA dated 11th December 2007 from Israeli DNA 'Ministry of Environmental Protection has been provided. The title matches the title of the project in the PDD. Participatory requirements, project's contribution to sustainable development and authorization are clearly stated. Hence CAR1 was closed out.							

Date:	08/01/2008			Raised by:	Nikunj Agarwal		
No.:	2	Type:	NIR	Issue:	Coordinates of the site	Ref.:	A.4.1
Lead Assessor Comment					Date: 08/01/2008		
The latitude and longitude of the plant is missing in the PDD. Please justify.							
Project Participant Response:					Date: 15/01/2008		
The plant is located at 31°04'00N and 35°11'51E. Has been included in PDD in section A.4.1.4.							
Acceptance and Close out by Lead Assessor:					Date: 14/02/2008		
Information Provided: Latitude and longitude has been incorporated in revised PDD Information Verified: Latitude and longitude of the site						Verified Document Reference: Revised PDD	

Reasoning for acceptance and close out: The latitude and longitude has been incorporated in the revised PDD hence this NIR was closed out

Date:	08/01/2008			Raised by:	Nikunj Agarwal		
No.:	3	Type:	NIR	Issue :	Technology Transfer	Ref.:	A.4.8
Lead Assessor Comment					Date: 08/01/2008		
The project technology is not likely to be substituted by the project participant by more efficient technology. Proof from the project participant needs to be provided.							
Project Participant Response:					Date: 15/01/2008		
Pleae find attched the letter of undertaking.							
Acceptance and Close out by Lead Assessor:					Date: 14/02/2008		
Information Provided: About the technology transfer Information Verified: Technology will not changed during the crediting period.					Verified Document Reference: Letter of undertaking		
Reasoning for acceptance and close out: The project proponent has provided the letter of undertaking for not to substitute the technology by other efficient technology, hence this NIR was closed out.							

Date:	08/01/2008			Raised by:	Nikunj Agarwal		
No.:	4	Type:	NIR	Issue :	Training	Ref.:	A.4.9
Lead Assessor Comment					Date: 08/01/2008		
Please provide the details of extensive initial training for the project Activity.							
Project Participant Response:					Date: 15/01/2008		
List of training courses for the RAN employees for natural gas and number of hours required to train each employee: • Inspection/Operators (24 hours) • General employees (4 hours) • Engineers (40 hours) • Managers (8 hours) • Maintenance (24 hours) • Quality control (24 hours) • Safety (24 hours) • System analysts (80 hours) Total: 228 hours which corroborate to 595 working days. At site visit, the local assessor reviewed and received all the course syllabi.							
Acceptance and Close out by Lead Assessor:					Date: 14/02/2008		
Information Provided: Details of training Information Verified: Training module and training hours along with the syllabus for the same.					Verified Document Reference: Training syllabus		
Reasoning for acceptance and close out: The details of the training has been checked and verified by the local assessor during the site visit and found satisfactory, hence this NIR was closed out.							

Date:	08/01/2008			Raised by:	Nikunj Agarwal		
No.:	5	Type:	NIR	Issue :	ODA	Ref.:	A.5.1

Lead Assessor Comment	Date: 08/01/2008
As per the PDD, there is no public funding involved in the project activity. Proof in this regard needs to be provided by the project participant.	
Project Participant Response:	Date: 15/01/2008
The Head of Business Development – Mr. Yonatan Shtibel - provided a letter to show that the plant is fully financing its project internally and is not receiving ODA for the project from any governmental or other bodies. A copy of this letter was provided to the local assessor during the site visit and is attached.	
Acceptance and Close out by Lead Assessor:	Date: 14/02/2008
Information Provided: Letter from the project participant regarding no use of ODA Information Verified: ODA is not used for the project activity.	Verified Document Reference: No ODA Letter
Reasoning for acceptance and close out: The project proponent has provided the letter of undertaking that no ODA has been used for the project activity; hence this NIR can be closed out.	

Date:	08/01/2008			Raised by:	Nikunj Agarwal		
No.:	6	Type:	NIR	Issue:	Baseline Emission	Ref.:	B.3.2
Lead Assessor Comment					Date: 08/01/2008		
The identification for the baseline Scenario in the PDD is not clear. Please provide the supporting documents that Fuel Switch to NG without CDM is not most likely baseline scenario.. Please provide the calculation spreadsheet for Baseline Emission.							
Project Participant Response:					Date: 15/01/2008		

Corrections noted in the site visit have been changed in the PDD and in the CER calculation file.

The local assessor reviewed the evidence provided during the validation to explain how the baseline scenario was reached. The local assessor received a copy of each type of evidence listed in the PDD during the validation. IN response to validation questions, additional information to strengthen the baseline selection was added to section B.4 of the PDD. Evidence brought includes:

Analysis	Evidence presented
Local Rules and Regulations	
All baseline options meet air quality standards	Stack emissions tests shown at site visit as evidence that RAN plant meets its air emission requirements
Technological barriers	
No skilled personnel to work with NG in Host Country	Training plans and syllabi for different employees
	Number people trained and manpower days required for training
Annex I country expertise contracted as there is a lack of local experience in working with NG. Consulting was required both for planning and for quality assurance of the equipment	Bureau Veritas contract to show that expertise from companies from Annex I countries are needed to provide expertise for third party inspection of all parts of project equipment for plant.
	Wega contract to show that expertise from companies from Annex I countries are needed to inspect and approve the plant's engineering plan.
Uncertainty of the Fuel Supply	
Risks in the NG supply from EMG (Egypt)	Media articles specifying public opposition in Egypt to NG trade with Israel
Lack of alternate sources of supply in the event that the EMG natural gas supply disrupted	Media articles detailing that other local supplies (Yam Tethys and British Gas) are not realistic supply options
NG contracts are take-or-pay, which locks buyer in	Presentation on NG contracts in Israel from the Energy Conference 2007 held in May 2007. As a contract has not been signed yet, No contract is available at this stage.
Production losses	
The project will lead to loss of production, which is risky given the other potential project barriers	Statement by RAN project manager that RAN plant must shut down production completely to implement NG fuel switch.

Please find attached the excel sheet.

Acceptance and Close out by Lead Assessor:	Date: 14/02/2008
Information Provided: About the barriers for the project activity. Information Verified: There were no barriers to operate the baseline and to operate the project activity is having a lot of barriers.	Verified Document Reference: Revised PDD

Reasoning for not acceptance and close out:
Please provide the documentary evidence fro the following:

- According to Energy Conference 2007 presentation on NG contracts in Israel Held on May 2007
- As a contract has not been signed yet, No contract is available at this stage.
- CER calculation sheet does not mention the emission reduction for whole of the crediting period.

Project Participant Response:	Date: 06/05/2008

Please find attached the following letters with Translation by the signature of an Annex1 participants mentioned in the PDD • A contract with Yam Tethys was sign, as can be fount in the relevant part of the contract attached. • The contract was sign by DSW for all the 5 ICL projects as can be seen in the second page. • please find attached the revised calculation spreadsheets for the RAN project:

Acceptance and Close out by Lead Assessor:	Date: 06/05/2008
Information Provided: About the barriers for the project activity. Information Verified: There were no barriers to operate the baseline and to operate the project activity is having a lot of barriers.	Verified Document Reference: CER calculation sheet, contract with Yam Tethys
Reasoning for acceptance and close out: The project proponent has provided the supporting documents that the Fuel Switch to NG without CDM is not most likely baseline scenario; hence this NIR was closed out.	

Date:	08/01/2008			Raised by:	Nikunj Agarwal		
No.:	7	Type:	CAR	Issue:	Additionality	Ref.:	B.4.7
Lead Assessor Comment					Date: 08/01/2008		
The project activity faces the barrier due to prevailing practice and technological barriers along with some other barriers. Please provide the supportive documents for the additionality. • Provide documentary evidence to support the technological barriers. • Please provide the supporting documents for the other barriers mentioned in the PDD.							
Project Participant Response:					Date: 15/01/2008		

Barrier	Evidence
Technological Barrier	
Natural gas not familiar in industry and no knowledge at the plant – extensive training required	Training plans and syllabus for different employees
	Number people trained and manpower days required for training
Annex I country expertise contracted as there is a lack of local experience in working with NG. Consulting was required both for planning and for quality assurance of the equipment	Bureau Veritas contract to show that expertise from companies from Annex I countries are needed to provide expertise for third party inspection of all parts of project equipment for plant.
	Wega contract to show that expertise from companies from Annex I countries are needed to inspect and approve the plant's engineering plan.
Uncertainty of Fuel Supply	
Potential uncertainty with fuel supply from Egypt	Public opposition to natural gas business with Israel – media articles
	Security problems in the region – media articles and U.S. State Department Report for 2006 (http://www.state.gov/s/ct/rls/crt/2006/82733.htm)
Lack of other suppliers in the region	Yam Tethys supplies all contracted – media articles
	British Gas supplies not possible because will not be available until at least 2011 and for political reasons – media articles
Take or Pay contract	Natural gas purchased in long-term take-or-pay contracts that cause the natural gas to become a fixed cost and a financial commitment for the plant – evidence Energy Conference 2007 presentation on Natural Gas Contracts

Acceptance and Close out by Lead Assessor:	Date: 14/02/2008
Information Provided: About the barriers for the project activity. Information Verified: There were no barriers to operate the baseline and to operate the project activity is having a lot of barriers and the project is additional.	Verified Document Reference: Revised PDD, Wega Contract, Training documents

Reasoning for not acceptance and close out:
Please provide the following letters in English only:

- Training plans and syllabus for different employees
- Number people trained and manpower days required for training
- Natural gas purchased in long-term take-or-pay contracts that cause the natural gas to become a fixed cost and a financial commitment for the plant – evidence Energy Conference 2007 presentation on Natural Gas Contracts

Project Participant Response:	Date: 06/05/2008

Please find attached the following letters with Translation by the signature of an Annex1 participants mentioned in the PDD

- A contract with Yam Tethys was sign, as can be found in the relevant part of the contract attached.
- The contract was sign by DSW for all the 5 ICL projects as can be seen in the second page.

Acceptance and Close out by Lead Assessor:	Date: 25/06/2008

Information Provided: Letter from the project participant regarding no use of ODA Information Verified: There were no barriers to operate the baseline and to operate the project activity is having a lot of barriers and the project is additional	Verified Document Reference: Training Documents, documents related to the barriers for the project activity
Reasoning for acceptance and close out: After reviewing the documents related to the barriers for the project activity such as the media articles stating about the use of NG, training requirement for the project activity which shows that the project activity would require a lot of training and manpower, contract with the project proponent with third party that there is involvement of Annex 1 party for continual operation of the project and with the other supporting documents it was conclude that project faces the technological barriers to implement the project activity, hence this CAR was closed out.	

Date:	08/01/2008			Raised by:	Nikunj Agarwal		
No.:	8	Type:	CAR	Issue:	Additionality	Ref.:	B.4.8
Lead Assessor Comment					Date: 08/01/2008		
As per the PDD, the project activity is not a common practice, proofs regarding this need to be submitted by the project proponent.							
Project Participant Response:					Date: 15/01/2008		

Barrier	Evidence
Barrier due to prevailing practice	
Among the first private natural gas fuel switch projects in Israel	Letter from Natural Gas Authority about use of natural gas in Israel
	Official publication from the Israeli Ministry of Infrastructure from August 2007 shows that only one private company, Israel, American Israel Paper Mills, uses natural gas and is also a CDM project (validated by SGS).
In Israel, mostly petroleum fuels used for energy in industry	International Energy Agency graphs of fuels used in Israel (as contained in PDD)

Acceptance and Close out by Lead Assessor:	Date: 14/02/2008
Information Provided: About the prevailing practise barrier for the project activity. Information Verified: There were no barriers to operate the baseline and to operate the project activity is having prevailing practise barrier also and the project is additional.	Verified Document Reference: Letter from Natural Gas Authority, Revised PDD,
Reasoning for not acceptance and close out: Please provide the following letter in English only: • Official publication from the Israeli Ministry of Infrastructure from August 2007 shows that only one private company, Israel, American Israel Paper Mills, uses natural gas and is also a CDM project (validated by SGS).	
Project Participant Response:	Date: 06/05/2008
Please find attached the letter with Translation by the signature of an Annex1 participants mentioned in the PDD	
Acceptance and Close out by Lead Assessor:	Date: 06/05/2008
Information Provided: Letter from the project participant regarding prevailing practise barrier. Information Verified: There were no barriers to operate the baseline and to operate the project activity is having prevailing practise barrier also and the project is additional.	Verified Document Reference: Official publication from the Israeli Ministry of Infrastructure

Reasoning for acceptance and close out: The project proponent has provided the Letter from Natural Gas Authority about use of natural gas in Israel, which says that use of natural gas is not a common practice in Israel; same was also verified from the site www.mni.gov.il. PP has submitted the Official publication from the Israeli Ministry of Infrastructure from August 2007 which shows that only one private company, Israel, American Israel Paper Mills, uses natural gas and the same can be checked by the site http://www.mni.gov.il/mni/he-il/Energy/Messages/SpokesmanNGHadera.htm, which is saying the information in Israel language, hence the PP has submitted the translation version of the information published on the site, which was checked and found satisfactory and this is also a CDM project which was cross verified with the UNFCCC website, hence this CAR was closed out.

Date:	08/01/2008			Raised by:	Nikunj Agarwal		
No.:	9	Type:	NIR	Issue :	Emission Reduction Calculation Sheet	Ref.:	B.7.1
Lead Assessor Comment					Date: 08/01/2008		
Please provide the calculation spreadsheet for emission reduction giving baseline emissions and project emissions.							
Project Participant Response:					Date: 15/01/2008		
The calculation spreadsheets for the RAN project is attached:							
Acceptance and Close out by Lead Assessor:					Date: 14/02/2008		
Information Provided: Emission Reduction Calculation Sheet Information Verified: Emission Reduction Calculation Sheet has been amended.						Verified Document Reference: Revised Emission reduction sheet	
Reasoning for not acceptance and close out: CER calculation sheet does not mention the emission reduction for whole of the crediting period.							
Project Participant Response:					Date: 06/05/2008		
The revised calculation spreadsheets for the RAN project is attached:							
Acceptance and Close out by Lead Assessor:					Date: 06/05/2008		
Information Provided: Emission Reduction Calculation Sheet Information Verified: Emission Reduction Calculation Sheet has been amended.						Verified Document Reference: Revised Emission Reduction Sheet	
Reasoning for acceptance and close out: Revised CER calculation sheet has been checked and found satisfactory; hence this NIR was closed out.							

Date:	08/01/2008			Raised by:	Nikunj Agarwal		
No.:	10	Type:	NIR	Issue :	Starting date of the project activity	Ref.:	C.1.1
Lead Assessor Comment					Date: 08/01/2008		
Please Provide an evidence for the starting date of project activity.							
Project Participant Response:					Date: 15/01/2008		
The project has not begun. It is estimated that construction to implement the project will begin during Q2'08 lasting 5 months for the Natural gas arrival during Q1'09. A letter from the manager of the natural gas fuel switch project of Israel Chemicals is attached							
Acceptance and Close out by Lead Assessor:					Date: 14/02/2008		

Information Provided: Evidence for the start date of project activity Information Verified: A letter from the manager of the natural gas fuel switch project of Israel Chemicals is attached	Verified Document Reference: A letter from the manager of the natural gas fuel switch project of Israel Chemicals is attached
Reasoning for not acceptance and close out: Please provide the supporting documents for the starting date of the project activity as mentioned in the section C.1.1. **Definition for the starting date of the project activity:** The starting date of a CDM project activity is the date on which the implementation or construction or real action of a project activity begins.	
Project Participant Response:	Date: 06/05/2008
The starting date of the project activity as mentioned in the section C.1.1 is the starting date of a CDM project activity is the date on which the implementation or construction or real action of a project activity begins. On this date RAN signed the gas supply contract following which the equipment contracts were signed with the suppliers.	
Acceptance and Close out by Lead Assessor:	Date: 27/05/2008
Information Provided: About the start date of the project activity Information Verified: Start date of the project activity is 25th March 2008	Verified Document Reference: Gas supply contract
Reasoning for acceptance and close out: PP has submitted the gas supply contract dated 25th March 2008, the same date has been accepted as the starting date of the project activity, but in the revised PDD starting date of the project activity is still showing 1st march 2008, please justify.	
Project Participant Response:	Date: 05/06/2008
The starting date of the project activity as mentioned in the section C.1.1 is the starting date of a CDM project activity is the date on which the implementation or construction or real action of a project activity begins. On this date RAN signed the gas supply contract following which the equipment contracts were signed with the suppliers.	
Acceptance and Close out by Lead Assessor:	Date: 25/06/2008
Information Provided: About the start date of the project activity Information Verified: Start date of the project activity is 25th March 2008 as reflecting in the revised PDD.	Verified Document Reference: Revised PDD
Reasoning for acceptance and close out: PP has submitted the revised PDD with the start date of the project activity as 25th March 2008; hence this NIR was closed out.	

Date:	08/01/2008			Raised by:	Nikunj Agarwal		
No.:	11	Type:	NIR	Issue :	EIA Requirement	Ref.:	D.1.1
Lead Assessor Comment					Date: 08/01/2008		
Provide detail reference of the Host Country legislation, under which EIA study is not required for the project activity.							
Project Participant Response:					Date: 15/01/2008		

Regarding whether an environmental study was required for the project, I refer to the document, "Regulations for Planning and Building (Environmental Impact Assessment) 2003" published by the Ministry for Environmental Protection on its website. The document is only available in Hebrew. This is the translation of the situations (p.2) that require the submission of an EIA:

- Power plant
- Airport
- Sea port
- Marina
- Refinery
- Landfill/treat site for hazardous waste
- Draining areas of the sea

Internal construction at a facility to change the fuel source for energy generation is not included in this list and therefore, there is no requirement for an EIA.

The local assessor was given a copy of the "Regulations for Planning and Building (Environmental Impact Assessment) 2003" to confirm that the above is correct, since the document is in Hebrew. The local assessor approved this document as being pertinent and accurate to the above NIR.

The link to the regulation:

http://www.environment.gov.il/Enviroment/Static/Binaries/law/klali37_1.pdf

Acceptance and Close out by Lead Assessor:	Date: 14/02/2008
Information Provided: Evidence for no EIA requirement Information Verified: No EIA is required for this project activity.	Verified Document Reference: "Regulations for Planning and Building (Environmental Impact Assessment) 2003"
Reasoning for acceptance and close out: The explanation given by the project proponent regarding the EIA not required for the project activity has been verified from the documents and the links provided to the DOE and found satisfactory; hence this NIR was closed out.	

Date:	08/01/2008			Raised by:	Nikunj Agarwal		
No.:	12	Type:	NIR	Issue:	Media for stake holder consultation	Ref.:	E.1.2

Lead Assessor Comment	Date: 08/01/2008
Please provide the media used to invite the local stake holders for stake holder consultation meeting.	
Project Participant Response:	Date: 15/01/2008
The stakeholders were invited to the consultation meeting via email and telephone by the NGO "Sustainable Negev",which organises the regular Community Advisory Panels stakeholder meetings.	
Acceptance and Close out by Lead Assessor:	Date: 14/02/2008
Information Provided: About the Media for stakeholder consultation Information Verified: Stake holder were invited for the stake holder meeting	Verified Document Reference: Media for the stake holder consultation
Reasoning for not acceptance and close out: The copy of invitation seems to be in local Israel language which may not be readable by EB members, so please provide the English version approved by the authenticated person.	
Project Participant Response:	Date: 06/05/2008
Translation with an Annex1 participants signature	
Acceptance and Close out by Lead Assessor:	Date: 27/05/2008

Information Provided: About the Media for stakeholder consultation Information Verified: Stake holder were invited for the stake holder meeting	Verified Document Reference: Translated Media for the stake holder consultation
Reasoning for acceptance and close out: PP has submitted the translation of the Invitation letter in English, which has been checked and found satisfactory, hence this NIR was closed out.	

Date:	08/01/2008			Raised by:	Nikunj Agarwal		
No.:	13	Type:	NIR	Issue :	MoM of the stake holder Consultation	Ref.:	E.1.3

Lead Assessor Comment	Date: 08/01/2008
Please provide the MoM of the meeting of local stake holder consultation.	
Project Participant Response:	Date: 15/01/2008

The stakeholders' meeting schedule included:

- 15-minute presentation by EcoTraders about climate change, CDM and the fuel switch project
- 15-minute presentation by the plant describing the fuel switch project
- 30 minutes were provided for the stakeholders to ask questions, make comments and for EcoTraders and the plant to respond.

The questions and comments from particpants in the meeting are included in the PDD in section E.2. The responses that were provided to these are included in the PDD in section E.3. List of participants in the meeting included in the PDD in section E1.
The local assessor reviewed and received a copy of the presentation EcoTraders made at the meeting and of the information sheet given to participants (in Hebrew).

A copy of EcoTraders presentation:

A copy of the information sheet given to participants at the stakeholders meeting inviting them to insert their comments in our website:

Acceptance and Close out by Lead Assessor:	Date: 14/02/2008
Information Provided: MoM of the stake holder meeting Information Verified: About the stakeholder meeting.	Verified Document Reference: "Regulations for Planning and Building (Environmental Impact Assessment) 2003"
Reasoning for not acceptance and close out: The attached document seems to be in local language, please translate the same into the English and get it approved by the authenticated person.	
Project Participant Response:	Date: 17/03/2008
Please find attached the documents in English language.	
Acceptance and Close out by Lead Assessor:	Date: 07/04/2008
Information Provided: MoM of the stake holder meeting Information Verified: About the stakeholder meeting.	Verified Document Reference: "Regulations for Planning and Building (Environmental Impact Assessment) 2003"
Reasoning for acceptance and close out: MoM has been checked and the same was verified y the local stakeholder consultation during site visit and found satisfactory, hence this NIR was closed out.	

A.4 Annex 4: Team Members Statements of Competency

Statement of Competence

Name:Nikunj Agarwal SGS Affiliate:SGS India

Status

- Product Co-ordinator ☐
- Operations Co-ordinator ☐
- Technical Reviewer ☐
- Expert ☒

	Validation	Verification
- Local Assessor	☒	☒
- Lead Assessor	☒	☒
- Assessor / Trainee Lead Assessor	☒	☒

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)	☒
2. Energy Distribution	☒
3. Energy Demand	☒
4. Manufacturing	☒
5. Chemical Industry	☐
6. Construction	☐
7. Transport	☐
8. Mining/Mineral Production	☐
9. Metal Production	☐
10. Fugitive Emissions from Fuels (solid,oil and gas)	☐
11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride	☐
12. Solvent Use	☐
13. Waste Handling and Disposal	☐
14. Afforestation and Reforestation	☐
15. Agriculture	☐

Approved Member of Staff by Siddharth Yadav Date: 21/12/2007

Statement of Competence

Name:Avi Sadikov SGS Affiliate:SGS Israel

Status

- Product Co-ordinator ☐
- Operations Co-ordinator ☐
- Technical Reviewer ☐
- Expert ☐

	Validation	Verification
- Local Assessor	☒	☐
- Lead Assessor	☐	☐
- Assessor / Trainee Lead Assessor	☐	☐

Scopes of Expertise

1. Energy Industries (renewable / non-renewable) ☐
2. Energy Distribution ☐
3. Energy Demand ☐
4. Manufacturing ☐
5. Chemical Industry ☐
6. Construction ☐
7. Transport ☐
8. Mining/Mineral Production ☐
9. Metal Production ☐
10. Fugitive Emissions from Fuels (solid,oil and gas) ☐
11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride ☐
12. Solvent Use ☐
13. Waste Handling and Disposal ☐
14. Afforestation and Reforestation ☐
15. Agriculture ☐

Approved Member of Staff by Marco van der Linden Date: 29-03-2007