

982
Log No. 98-416

GEFSEC Project Tracking System

Response Due Date: 09/29/98

Correspondence Description

Addressed to: Mr. Kenneth King

Correspondence Date: 09/22/98

Date Received: 09/22/98

Organization: UNDP

From: Rafael Asenjo

Assigned To: A. Miller

Status: Open

Type: Fax

Topic: PDF A: POLAND: Integrated Approach to Wood Waste Combustion for Heat Production

Action Instructions

- ☐ For Bilateral meeting
- ☐ For information only. No action needed.
- ☐ Please handle/respond on behalf of Mr. Kenneth King and provide a copy.
- ☐ Please handle/respond on behalf of Mr. Mohamed El-Ashry and provide a copy.
- ☐ Please prepare a draft response and return to Program Coordinator
- ☐ Please reply directly and provide a copy.
- ☒ Please review and/or technical comments

Special Instructions

This was submitted on 7/22/98 as a Concept in which you responded on 8/6/98.

Information Copies Sent To:

D. Ahuja, J. Wide, F. Rittner, Y. D'Souza

Projects File Room Location:

Note: A copy/original of the document is being sent directly to your attention.

Please return this page with a copy of the incoming correspondence and the reply/action taken to Program File Manager (GEFSEC Project File Room) before or by due date with the original copy of the correspondence and the reply/action.

FACSIMILE TRANSMISSION

**United Nations Development Programme**
GLOBAL ENVIRONMENT FACILITY (GEF)

To: Mr. Kenneth King
Assistant Chief Executive Officer
GEF Secretariat

Date: 22 September 1998

Mr. Lars Vidaeus, Chief
Global Environment Div.
World Bank

Mr. Ahmed Djoghla
GEF Executive Coordinator
UNEP, Nairobi, Kenya

Fax: 202-522-3240
202-522-3256
2542-520-825

Pages: (6 including this sheet)

From: Rafael Asenjo
Executive Coordinator

Subject: PDF A Funding - Integrated Approach to Wood Waste Combustion
for Heat Production in Poland

Please find attached for your review a PDF Block A request for funding entitled ***Integrated Approach to Wood Waste Combustion for Heat Production in Poland.***

We would appreciate receiving your comments no later than c.o.b. Tuesday 29 September 1998.

Thank you.

PM

Street Address: 304 East 45th Street, 10th Floor
Mail Address: One United Nations Plaza, Room No. 1094, New York, N.Y. 10017
Telephone: (212) 906 5044
Fax: (212) 906 6998

Polish Foundation for Energy Efficiency (FEWE)
Centre in Krakow

Integrated approach to wood waste combustion
.. for heat production in Poland

PDF BLOCK A - POLAND

1. Project name: <i>Integrated Approach to Wood-Waste Combustion for Heat Production in Poland.</i>	2. GEF Implementing Agency: <i>UNDP.</i>
3. Country in which the project is being implemented: <i>Poland.</i>	4. Country eligibility: <i>Ratified the UNFCCC on 28 July 1994.</i>
5. GEF focal area(s): <i>Climate Change.</i>	6. Operational programme: <i>OP 6: Promoting the adoption of renewable energy by removing barriers and reducing implementation costs.</i>
7. Project linkage to national priorities, action plans, and programmes: <i>Poland's National Environmental Policy puts emphasis on promoting energy efficiency and non-conventional energy sources in order to reduce the total gas emissions and particularly to reduce greenhouse gases (GHG). This is also the Polish obligation under the ratified UNFCCC and more recently the Kyoto Protocol where Poland has indicated to reduce GHG emissions with 6% compared to 1990 emissions (8% for the whole of Europe). The proposed GEF project needs to be seen separately from the environmental obligations that need to be met as a result of Poland's candidacy to join the European Union. Potential GEF funding will exclusively be used to meet obligations under the UNFCCC and Kyoto Protocol.</i>	
8. GEF national operational focal point and date of country endorsement: <i>Ministry of Environmental Protection, Natural Resources and Forestry, department of Environmental Policy - 12.11.1997, and the Ministry of Foreign Affairs, Department of the United Nations - 19.01.1998.</i>	
9. Project rationale and objectives: <i>The objective of this project is to put in place the necessary conditions and to prepare the outlines of a medium size project (project brief) that will remove barriers to and promote a more efficient use of sustainably produced wood-waste for production of heat, and thereby help Poland reduce its greenhouse gas emissions. Currently wood-waste is sustainably produced and offers a good possibility for substituting coal and lignite in applications varying from industrial process heat, space heating and hot water production. However a number of barriers obstruct this substitution process as indicated by the following observations; i) allocation of available wood-waste is far from optimal; ii) technologies used for burning wood-waste, as well as the end-use technologies are not efficient, and iii) even though the objective is producing heat to satisfy the demand side needs, efficiency often is a secondary issue as the primary concern is predominantly wood-waste disposal and avoidance of the related costs. Other existing barriers will be addressed in this proposal and activities will be designed for reduction and/or removal. The main objectives of the proposed medium size project are to:</i> <ul style="list-style-type: none"> <i>Demonstrate the commercial and technical feasibility of the integrated substitution concept - i.e. also involving energy efficiency improvements both on the heat supply and demand-side and identification of optimum uses and technologies - through business demonstration projects in areas selected with a large potential for replicability;</i> <i>Identify and design - through market organisation - the most efficient GHG abatement strategy for substituting fossil fuels with sustainably grown wood and wood waste.</i> <p><i>The proposed UNDP/GEF activities originate and build upon a study entitled '<u>Potential of wood waste combustion technologies in selected representative regions in Poland</u>' carried out under the EU-THERMIE Programme (1994). The study focused on identifying the physical and economical potentials of wood waste combustion for energy production and concluded that the amount of energy obtained from wood could be substantially increased in Poland.</i></p>	
10. Expected outcomes: <i>The output of the project will be the medium size project brief that will at minimum include the following items:</i> <ul style="list-style-type: none"> <i>Identified stakeholders in the project and their committed involvement in project implementation, such as municipal partners, wood processing industries, representatives of financial sources, representatives of end-user groups (residential, public and commercial), NGOs and environmental protection administration (local</i> 	

**Polish Foundation for Energy Efficiency (FEWE)
Centre in Krakow**

**Integrated approach to wood waste combustion
... for heat production in Poland**

and national);

- Description of legal, information, technical, organizational (including wood waste logistics) and financial barriers to more efficient use of wood waste for heat production and description of activities needed to overcome those barriers from the perspective of pilot project implementation and dissemination;
- Required human and institutional capacity strengthening activities have been determined;
- Preliminary rough estimate of the potential for project replication and the CO₂ reduction impact of the project in Poland and possibly neighboring countries with a similar historical background like Ukraine and Lithuania;
- A small (70-150 kW) wood waste fired boiler has been installed in a school to test the technical, logistical, contractual (wood fuel supply contract) and institutional barriers. This unit will be used as a local operational demonstration of the concept and is expected to have a much larger impact on creating awareness and understanding with local, municipal decision-makers. It will be installed in a school where end-use efficiency measures (insulation of windows, roof and reflective insulation - radiators) have already been undertaken (funded by USAID) resulting in a lower energy demand. It is anticipated that the wood-fired boiler will - after having demonstrated its operational usefulness - substitute a coal fired boiler;
- Description of pre-selected 8-12 project sites from among which ultimately 2-4 sites will be selected as a pilot project. This will include in particular:
 - Description of the legal and organizational set-up of project participants;
 - Letters of intent expressing readiness to participate in the project;
 - Identification and evaluation of available technical options;
 - Evaluation of wood waste supply potential and the (alternative) end-use demands;
 - Draft outline for a basic contract between wood-waste suppliers and end-users;
 - Costs of project implementation including calculations of pay back times on investments;
 - Projected project budget including non-GEF co-financing sources;
 - Description of and future potential for replicability of the pilot projects;
 - Calculations of amount and costs of CO₂ emission reduction.

11. Planned activities to achieve outcomes: To achieve the above outcomes the Foundation will carry out the following activities:

- Contact the Ministry of Environmental Protection and other interested national agencies, wood processing industrial associations, state forest administration units, NGOs (notably the Polish Ecological Club) and interested municipal associations (notably the Polish Network „Energy Cities” - PNEC) in order to identify the general nation-wide stakeholders;
- Using the above contacts, a broad survey of potential project partners will be carried out. The potential partners will be informed, about the project using direct information channels as well as local and professional press and bulletins.
In particular, letters will be sent out to a large number of municipalities where wood processing industries are located, in particular using the PNEC contacts to help identify the potential integrated projects (supply potential related to energy efficiency improvement potential);
Questionnaires will be subsequently sent out to potential project participants (ca 40-80) containing organizational, technical and financial issues;
- Based on the questionnaires a sample of about 8-12 potential project participants will be contacted and visited on site by FEWE and PNEC experts. Subsequently the 4-6 most suitable candidates will be selected for further investigation and negotiations that will lead to signing letters of intent to participate in the project. The procedure will involve in each case the wood waste supplier and end-users;
- Preliminary energy audits, on both supply and demand side, will be performed to match the supply and demand (after efficiency improvements on both sides);
- Subsequently, technical options will be considered and prioritized including project costs and pay-back times;
- Installation of a small wood-fired boiler in a school (see rationale under item 10);
- The possibilities of co-financing will be investigated for each of the selected 2-4 pilot projects. The potential sources that will be contacted include: The National Fund for Environmental Protection and its local counterparts, ECOFUND, municipalities and housing associations (the end-use side) and members of wood-waste boilers and related equipment;
- The data acquired in course of the above work will be used to estimate by extrapolation the total CO₂ emission reduction potential that could be achieved by nation-wide dissemination of the Project and unit costs

**Polish Foundation for Energy Efficiency (FEWE)
Centre in Krakow**

**Integrated approach to wood waste combustion
for heat production in Poland**

for CO₂ emission reduction.

12. Stakeholders involved in the project: Stakeholders will include i) the General Directorate of State Forests, ii) Environmental Protection Organisations (state, local and NGO's), iii) Polish Network Energy Cities (PNEC) (i.e. municipal governments), iv) schools and other local public institutions, v) ECO and/or Environmental Investment type of Funds, vi) local population served and employed by the demonstration projects and vii) the private sector. The following private sector entities are to be distinguished: investors in the commercially operated systems, hardware (boilers) suppliers and wood processing industry.

13. Total budget and information on how costs will be met: The PDF A Budget is outlined in the table below. The contribution to PDF A from sources other than GEF (FEWE, PNEC, municipality of Krapkowice and a wood processing industry) will include staff time, hardware¹, travel and communications and are estimated at US\$13,000. The total estimated budget for the GEF Medium Size Grant is in the range of US\$500,000-750,000 and will be detailed as part of PDF A activities. It is anticipated that PDF A activities will commence no later than 1 November 1998 and will be finished before 1 May 1999; i.e. a duration of 6 full months.

	Staff	Hardware	Travel
Staff	14,000	4,000	18,000
Hardware (wood boilers)	4,000	6,000	10,000
Travel	4,000	2,000	6,000
Communications	2,000	1,000	3,000
Miscellaneous	250		250
Subtotal	24,250	13,000	37,250
Executing Agency Support Costs (3%)	750		750
TOTAL	25,000	13,000	38,000

14. Name: Polish Foundation for Energy Efficiency (FEWE) - Center in Krakow.
30 - 814 Kraków, ul. Florianska 55, POLAND
tel/fax +48 12 421 30 70, +48 12 421-39-89

15. Date of establishment, membership, and leadership: FEWE was established in 1990, the Center in Kraków was opened in 1992 and is directed by Prof. Dr Adam Gula

16. Mandate/terms of reference: FEWE is a non-profit organization established to support activities that promote rational use of energy and protect the natural environment. FEWE operates with educational and scientific means in different sectors of the Polish economy e.g. fuel and energy consumers (industry, trade and service, households) and energy subsystems in particular power and heat engineering.

17. Sources of revenue: Main sources of founding are project activities (demonstration projects, training seminars and research). Financed e.g. by GEF/IFC (PELP), EU (TEMPUS), USAID (SME support and thermal renovation of buildings, training for Ukrainian specialists). Last year's total budget was approximately US\$450,000.

18. Recent activities/programmes, in particular those relevant to the GEF: Polish Efficient Lighting Project (PELP) - DSM part (financed by GEF) 1996-1998; Promotion of Energy Efficiency and Thermal Renovation SME's (USAID) 1997-2000. Training Seminars in Energy Efficiency for Municipal Decision-Makers (TEMPUS - EU) 1995-1996; Training Seminars and Practical Placements for Ukrainians (USAID) 1997-1998.

19. Project identification number:

20. Implementing agency contact person: David Vousden UNDP/RBEC (+1 212 906 6402) and Vesa Rutanen UNDP/Bratislava (+421 7434 7437)

21. Project linkage to implementing agency programme: A proposal on energy efficient motors in the Polish

¹ The hardware contribution from other sources than GEF relates to a US\$2,000 contribution from the Municipality of Krapkowice for co-financing a wood fired boiler in one of its schools. An investment for an energy efficient wood-fired boiler - amounting to US\$4,000 - is anticipated from the envisaged wood waste supplier for the school's wood-fired boiler, thereby freeing more wood waste and as such it is regarded as co-financing in the context of this project's integrated approach to using wood waste for heat production in Poland.

FROM RAFAEL ASENJO UNDP GEF

212 906 6998

(TUE) 9. 22' 98 18:09/ST. 18:05/NO. 4860993500 P

*Polish Foundation for Energy Efficiency (FEWE)
Centre in Krakow*

*Integrated approach to wood waste combustion
... for heat production in Poland*

*industrial and district heating sectors is currently being discussed and developed further into a potentially
UNDP/GEF supported project.*

**MINISTRY OF ENVIRONMENTAL PROTECTION, NATURAL RESOURCES and FORESTRY
DEPARTMENT OF ENVIRONMENTAL POLICY**

ul. Wawelska 52/54, 00-922 WARSZAWA, POLAND

phone No.: 0+48+22+25.47.84.

fax No.: 0+48+22+25.87.61.

**His Excellency
Mr. Mathew Kahane
RESIDENT REPRESENTATIVE
of the
UNITED NATIONS
DEVELOPMENT PROGRAMME
IN POLAND**

UNDP WARSAW	
DATE	11-11-97
FILE	SEP/GEF
REP	
PROG	PC2
ADM	

Warszawa, 12th November 1997
PECw/GEFmg/3729/97

Reference: The GEF medium-size grant for the project on Integrated Approach to Wood-Waste Combustion for Heat Production in Poland.

Dear Sir,

As you no doubt know one of the major priorities of Poland's National Environmental Policy is to promote non-conventional energy sources and fuels in order to reduce the total gas emission and particularly to reduce greenhouse gases emission. This is also our obligation arising from the UN Framework Convention on Climate Changes to which Poland has been a Party since 1994.

The biomass, particularly wood-waste, belongs to the fuels of considerable high potential for heat and energy production in small plants and boilers in Poland along with small hydropower plants and geothermal heating systems. Other non-conventional energy sources in specific country climatic conditions are of rather low potential. Thus each well determined project dealing with the pilot plants using the biomass for heat and energy production seems to be very useful for us.

The project under consideration, namely "Integrated Approach to Wood-Waste Combustion for Heat Production", as originally proposed by the Polish Foundation for Energy Efficiency (FEWE) - Centre in Kraków, seems to be very useful as the pilot one, and, if successful, for the promotion of using organic waste for heat production at much larger scale in Poland as well as in other countries of conditions similar to those in Poland.

Taking into account all referred to above I wish to support the original FEWE project for granting from the GEF medium-size grant programme. Transmitting the FEWE proposal I wish further to offer the constructive co-operation of the General Directorate of State Forests in project implementation. General Directorate, together with the Danish boiler producer, has installed a few boilers using wood-waste fuels reaching certain experiences which would be useful in FEWE-GEF project.

Enclosing my best personal regards, I remain.

c/c

Prof. dr hab. Adam Gula
DIRECTOR
FEWE - CENTRE IN KRAKÓW

Yours sincerely

Czesław Więckowski
Czesław Więckowski
DIRECTOR

Attn: Pat Hartung