

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C.

AMENDMENT NO. 4
to the
PROJECT MEMORANDUM

NEW INDEPENDENT STATES
ENERGY, EFFICIENCY, AND MARKET REFORM PROJECT
(110-0002)

APPROVED: April 14, 1993



U.S. AGENCY FOR
INTERNATIONAL
DEVELOPMENT

APR 14 1993

ACTION MEMORANDUM FOR THE DIRECTOR, NIS TASK FORCE

FROM: Carlos Pascual, ^{PSM for} NIS/TF/PAC

SUBJECT: Authorisation Amendment 4 for the Energy, Efficiency, and Market Reform Project (No. 110-0002)

PROBLEM:

Your approval is needed to increase the Energy, Efficiency and Market Reform Project for the New Independent States (NIS) from a current life-of-project funding level of \$67 million to \$250 million. The Project Assistance Completion Date (PACD) will continue to be February 25, 1996.

BACKGROUND:

Energy was recognized as a critical sector from the earliest days of A.I.D.'s assistance to the NIS. It became one of the highest items on the agenda for the summit between President Clinton and Russia's President Yeltsin, and Interagency discussions recognize that increased funding is essential for achievement of our foreign policy and assistance objectives.

The project has been increased from an initial \$1.8 million authorized level in January 1992 to the \$67 million in August 1992, and currently funds activities through four components: Energy Efficiency and Performance Improvement; Energy Pricing Policy and Institutional Reform; Energy Production and Delivery System Improvements; and Nuclear Power Plant Safety. Initial technical assistance activities were launched to meet the demand for quick impact, with little detailed, on-the-ground planning. A series of trips to NIS countries by NIS staff over the past few months permitted detailed planning of additional activities in conjunction with host governments, A.I.D. field missions, and Embassies in Russia, Kazakhstan, Ukraine, Kyrgyzstan, Byelarus, and Armenia. These trips confirmed the appropriateness of the project objectives, the critical nature of the sector across the NIS, and permitted development of specific activities to be undertaken in particular republics. Based on these trips, a

detailed work plan was developed in December 1992, which was reviewed and approved by the NIS Task Force, and which provides the basis for this proposed increase in authorized funding level from \$67 million to \$250 million. The proposed new activities are listed in the Project Memorandum.

While this amendment provides greater detail on activities to be funded within currently authorized components, and thereby justifies the increased funding level, no significant substantive change in project composition or objectives is involved other than addition of a technical management support unit described below under "Management and Evaluation Issues." Therefore no formal Project Committee or Interagency review was considered necessary, although Task Force staff and State Department colleagues have provided written comments and clearance.

REVIEW OF CURRENT COMPONENTS:

The current status of NIS/TF activities to carry out the components is summarized as follows:

Energy Efficiency & Performance Improvement

- o TA and demonstration equipment for district heating efficiency demonstration efforts in Russia, Kazakhstan, Kyrgyzstan, Ukraine, Byelarus, and Armenia. Energy pricing work related to these efforts and to other parts of the energy sector (gas in Russia and across sectors in Kazakhstan) are included in current contracts in order to move expeditiously at this stage, for some of the countries.

Pricing Policy & Institutional Reform

- o TA via Institute for International Education (IIE) with NYMEX for Russian Petroleum Commodity Exchange development.
- o First phase of a multi-year cooperative agreement with U.S. Energy Association (USEA) started, to sponsor a wide range of exchanges, seminars, and partnerships between U.S. private and public utilities, A&E firms, petroleum companies, etc and NIS counterparts in all six above republics; sponsored Armenia energy plan review and DOE Power Technology Conference.

Production & Delivery Systems

- o First phase of a multi-year cooperative agreement signed up with Partners In Economic Reform (PIER) to enhance coal management and mining safety in Russia, Ukraine, and Kazakhstan.
- o Buy-in contract under R&D/EI ETIP Project to catalyze \$60 million EBRD loan for completion of Hrazdan thermal power station

in Armenia.

Nuclear Power Plant Safety

o \$25m in IAAs with NRC (\$3.1m) and DOE (\$21.9m) signed up, with focus on Ukraine and Russia emergency operator safety enhancement and regulatory improvement.

Technical management support to NIS/TF/EET has to date been provided via as many as six engineering/economist short-term USPSCs.

FY 93 & BEYOND

With the above activities as the foundation of our start-up, a series of trips were taken to the NIS in August/September 92 to "ground-truth" our planning for the next year and in some cases, longer. Each of these trips resulted in a jointly signed Memorandum of Discussion with the host NIS republic which represented the outcome of a joint winnowing of priority energy activities. These Memoranda are on official file with NIS/TF/EET and at each of the 4 field mission. The results of this process and a similar winnowing process of unsolicited proposals and of proposals submitted by other USG agencies (via D/CISA) are summarized in the attachments, which form the basis of our FY93 obligations and planned obligations for FY94 and FY95.

Concentration:

For the remainder of FY93, we will concentrate on Russia, Ukraine, Kazakhstan, Kyrgyzstan, Armenia and Byelarus. We plan that the lion's share of funds in FY93 for these activities will be for Russia (50%), with the remaining funds being distributed between Ukraine (20%), Armenia and Kazakhstan (10% each), and Kyrgyzstan and Byelarus dividing the balance. It is expected that these ratios may continue for the life of project, given the importance of Russia and Ukraine, the importance of Kazakhstan for major new petroleum and clean coal development, the promise of Kyrgyzstan for setting a policy reform and modernization model for the Central Asian Republics, and the desperate situation in Armenia. Other requests for possible assistance for Moldova, and Uzbekistan are still at the formative stage and with exception of seminar/exchanges or training, are not expected to be addressed further in FY93, until planned regional TA contracts are up and running and lessons are learned from our ongoing similar activities elsewhere in the NIS. Assistance to Azerbaijan is not possible at this time due to legislative restrictions.

Focus:

First, what is not covered? Over 160 specific activities which

eliminated in our discussions with the NIS republic representatives.

Early attention will be devoted in the first half of FY93 to:

- Quick-start activities to meet high priority tangible needs
- Privatization and energy efficiency legislation/regulation
- Partnerships/exchanges with U.S. energy private sector and U.S. public institutional partners re: reorganization
- Urgent energy initiatives related to catalyzing upcoming World Bank/EBRD loans, which also provide opportunities for introducing U.S. technology/services
- Analysis of alternatives to nuclear-fuel cycle at unsafe nuclear power stations in Armenia, Russia, and Ukraine.
- Urgent Contingencies (eg. Armenia)

Implementation Approach

In implementing project activities, AID will draw on the expertise of the U.S. private sector and U.S. Government agencies as appropriate. We intend to use existing mechanisms (USEA, PIER, 3 energy efficiency/pricing contractors) and R&D/EI buy-in/IQC mechanisms (e.g., IIE, ETIP, PSED) to respond to the above activities.

Project-funded assistance will be closely coordinated with energy activities of other U.S. agencies. We plan to issue this Spring up to 2 new PASAs with USG agencies (DOE, DOI), co-fund (with the Environment Policy & Technology Project #0003) one IAA with EPA, initiate 2 Cooperative Agreements with the World Bank and EBRD for project loan preparation/technical and policy analyses, and put out for open competitive tender 2 major RFPs (one for long-term institutional/policy/privatization support and one for long-term engineering/technology/capital project development preparation support). After the bids on the latter RFPs are reviewed and final awards made, some or possibly all of the buy-ins will be gradually phased out. Concurrently, the existing 3 energy efficiency/pricing contracts will phase out. (At this time, only one unsolicited proposal is contemplated to be funded--the Atlantic Council's U.S.-NIS-Japan energy policy initiative, which will be one year in duration.)

We plan to obligate in FY93 another \$25 million for nuclear safety activities via IAAs with DOE and NRC to continue Lisbon Nuclear Safety Initiatives, including regional training centers, operational safety enhancements, risk reduction measures for RBMKs and UUSR 440/230s, and establishment of safety regulations.

Up to another \$50 million shall be available either for further nuclear safety assistance or for alternatives to nuclear power supply over the life-of-project.

To ensure strong coordination in project planning and implementation, a project steering committee will be established and chaired by the Project Officer and will comprise NIS/TF/EET staff, other NIS/TF staff, representatives of USAID NIS missions as available, an R&D representative, the State Department's Office of the Coordinator, State/EUR, and other U.S. government agency representatives as appropriate. It will meet quarterly, or more frequently as necessary.

For the total life-of-project, it is expected that about 30% of the funds would go to energy efficiency/market reform and to pricing policy/institutional reform, 40% of the funds will be dedicated to nuclear safety improvements or non-nuclear power alternatives, and about 30% for catalyzing tangible improvements to and net additions to energy production and delivery systems, especially in those areas where the U.S. has a clear competitive advantage in technology and services.

FY94 - FY95 - FY96

Activity and cost estimates for those items which we anticipate will need further continuation have been summarized in attachments, in order to give an estimated total LOP for the Energy Efficiency & Market Reform Project, including possible nuclear safety assistance.

FIELD ROLE

USAID field staff will be responsible for assisting in identification of country specific activities, providing input to country specific strategies, and monitoring of all field activities conducted under this project within their respective countries. Already, field missions were engaged in initial Memoranda of Discussions, initial winnowing of cooperation areas, and review of the draft energy work plan upon which this amendment is based. The two major long-term regional contracts to be issued will be structured so as to provide flexible, responsive "buy-in" type "Q" contract mechanisms for field missions to tap the project to meet field-based needs based upon field-initiated PIO/T work orders. The work orders will be reviewed by NIS/TF/EET and will specify field monitoring responsibilities and technical directions responsibilities.

MANAGEMENT AND EVALUATION ISSUES

We will need to continue to have a mechanism to provide

NIS/TF/EET with ongoing technical engineering/economist management support throughout the next few years, as well as to provide similar critical support to the field missions. An 8A firm will provide this support, including full-time professionals to assist NIS/TF/EET, and U.S. full-time professionals and NIS local professionals to assist the field posts (assigned to Kiev, Almaty, Yerevan, and Moscow). These professionals will also provide assistance and services to host country counterparts in response to energy assistance agendas prepared by host government entities. These services should not exceed estimated 2% of LOP.

Interim evaluation is planned May 1994, two and one half years after original authorization, more than one year after establishing a field presence in Moscow -- and one year after major TA contractor start-up. The attached Project Amendment describes project activities in more detail, and includes an illustrative budget (Tab A).

LEGISLATION AND AUTHORITY:

The Freedom Support Act (FSA) and the FY 1993 Appropriations Act (P.L. 102-391) contain several provisions that limit assistance or require the Executive Branch to take into consideration certain factors in providing assistance. Section 907 of the FSA bars United States assistance to the Government of Azerbaijan unless the President determines and reports to Congress that the GOA is taking demonstrable steps to cease all blockades and other offensive actions against Armenia and Nagorno-Karabakh. Thus the GOA will be eligible for assistance under this project only after the determination has been made. Assistance may still be provided directly to the people of Azerbaijan.

The Appropriations Act bars obligations of more than 50% of aid (other than humanitarian assistance) to Russia until the President certifies substantial progress toward establishing a timetable for withdrawal of CIS and Russian armed forces from the Baltics. If the President has not so certified by June 1, 1993, then no assistance may be obligated. NIS/TF/PAC has established a system to monitor obligations to ensure compliance with this requirement.

Section 498A (a) of the Foreign Assistance Act of 1961, as amended, sets forth a number of matters that are to be taken into account in providing assistance to NIS countries, such as progress toward democracy and economic reform, human rights, peaceful resolution of ethnic disputes and restraining arms transfers. Section 498A (b) prohibits aid to any NIS country that violates any of a number of restrictions relating to matters such as human rights, arms control, nuclear proliferation, and, with respect to Russia, withdrawal from the Baltics. The Secretary of State as Coordinator has reviewed memoranda dealing with these statutes for Armenia, Georgia, Kazakhstan, Russia, and

**FOURTH AMENDMENT TO
PROJECT AUTHORIZATION**

Name of Region: New Independent States (NIS)
Name of Project: Energy Efficiency and Market Reform
Number of Project: 110-0002

1. The authorization for Energy Efficiency and Market Reform Project 110-0002, dated January 1, 1992 and amendments dated May 21, 1992, August 7, 1992 and October 29, 1992 are hereby deleted in their entirety and the following is submitted:

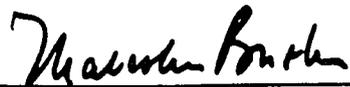
1. Pursuant to Sections 498B and 531 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Energy Efficiency and Market Reform Project Amendment No. 4 for the New Independent States, involving planned obligations of not to exceed \$250 million in grant funds over a four-year period from the date of first obligation, and subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs of the project. The planned life of project is through February 25, 1996.

2. The project consists of technical assistance, training, and commodities and local costs in support of energy efficiency, market reform, and civilian nuclear power plant safety in the states of the former Soviet Union.

3. The project agreements which may be negotiated and executed by the Officer (s) to whom such authority is delegated in accordance with A.I.D. regulations and Delegations of Authority shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate:

Source and Origin of Commodities, Nationality of Services

Commodities financed by A.I.D. under the project shall have their source and origin in the United States, the New Independent States of the former Soviet Union, or in countries included in A.I.D. Geographic Code 941, except as A.I.D. may otherwise agree in writing. Except for ocean shipping, the suppliers of commodities or services shall have the United States, countries in A.I.D. Geographic code 941, or the New Independent States of the former Soviet Union, as their place of nationality, except as A.I.D. may otherwise agree in writing. Ocean shipping financed by A.I.D. under the project, except as A.I.D. may otherwise agree in writing, shall be financed only on flag vessels of the United States.



Malcolm Butler
Director, Task Force
New Independent States

APR 22 1993

Date

Clearances (Project No. 110-0002):

A.I.D.:

NIS/TF/OD:	BTurner	DRAFT	<i>25 8/17/93</i>
NIS/TF/OD:	LCrandall	SUBST	
NIS/TF/EET:	RBeckman	DRAFT	<i>plm 4/3/93</i>
NIS/TF/PAC:	PMatheson	DRAFT	
NIS/TF/FA:	BKline	DRAFT	
NIS/TF/OD:	JWinn	DRAFT	
NIS/GC:	BBryant	DRAFT	
OP/CC/N:	JKryschtal	DRAFT	
NIS/TF/EET:	DLong	DRAFT	

STATE:

S/NIS:	CRufenacht	DRAFT	Date: <u>4-7-93</u>
NIS/GC:	TGeiger	DRAFT	Date: <u>4-12-93</u>

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**ENERGY EFFICIENCY AND MARKET REFORM
PROJECT MEMORANDUM AMENDMENT NO. 4**

I. SUMMARY OF KEY INFORMATION

Project Title:	Energy Efficiency and Market Reform
Project Number:	110-0002
LOP Funding:	\$250 million (37.6 million ESF, 212.4 million NIS)
Original Authorization	1/21/92 (\$1.8m est)
PACD:	2/25/96
Project Purpose:	To improve the efficiency of energy production, distribution, and consumption in the New Independent States (NIS) of the former Soviet Union to help implement energy sector market reform, and to promote safety of Soviet designed nuclear power stations.
Amend #1:	5/21/92 (\$43.2m)
Amend #2:	8/7/92 (\$22.0 m)
Amend #3:	10/29/92 (No cost change)
Amend #4:	4/ /93 (\$183 million)

II. BACKGROUND

The project was originally authorized Jan 21, 1992 at \$1.8m to initiate 3 district heating energy efficiency improvement activities; amended May 21, 1992 to a LOP level of \$45 million to expand these and add coal mine safety/health/reform, energy institutional partnerships, petroleum commodity exchange training, and initial nuclear safety activities; amended August 7, 1992 to a LOP of \$67 million to add more nuclear safety funding.

Energy was recognized early on as a key sector in the economies of all the NIS states, whether net importers or net exporters of energy. U.S. assistance efforts will continue to concentrate on short-term catalytic impacts, critical policy reforms, and other measures which also provide opportunity for the NIS to tap the benefits of U.S. trade and investment. Improving energy efficiency will be an important element in achieving viable economies, reducing environmental pollution, and reducing or eliminating the need to continue operating some of the unsafe civilian nuclear power plants.

A.I.D.'s strategy is to improve the efficiency and performance of

energy production and consumption, support energy sector privatization and market reform, and reduce safety risks of nuclear power plants. The project provides highly visible, high impact technical assistance while also supporting U.S. private sector opportunities in areas of U.S. comparative advantage. Geographic concentration is on Russia, which will receive about half of project assistance, and secondarily on Ukraine, Kazakhstan, Kyrgyzstan, Armenia, and Byelorussia. A.I.D.'s technical assistance efforts will catalyze World Bank, EBRD and other donor investments. This will likely open opportunities to U.S. suppliers as well as providing critically needed investment in the NIS.

The project's purpose will continue to be improvement of the efficiency and performance of energy production and consumption, support of energy sector privatization and market reform, and reduction in safety risks of nuclear power plants. For implementation purposes, this is still divided into four components:

Energy Efficiency and Performance Improvement--to improve energy efficiency in electric power, refineries, industries, and buildings.

Energy Pricing Policy and Institutional Reform--to introduce a market-driven approach for energy supply-demand balance in the NIS republics.

Energy Production and Delivery System Improvements--to improve production from existing facilities, development of additional capacity and efficiency-driven reduction in demand in key elements of the energy production, conversion and delivery system.

Nuclear Power Plant Safety--to reduce the risk of accidents in Soviet-designed civilian nuclear power reactor stations.

This amendment includes an unallocated element of \$50 million for yet to be determined nuclear safety or alternative to unsafe nuclear power plants. This may include for example engineering services for possible repowering of unsafe nuclear power plants to burn gas or coal or engineering services to help introduce efficient gas fired combined cycle power technology or coal-fired fluidized bed combustion technology which can burn low quality, non-exportable coal and greatly reduce sulfur emissions.

**ILLUSTRATIVE
IMPLEMENTATION MECHANISMS
& FUNDING REQUIREMENTS
(\$ Millions)**

<u>COMPONENT/MECHANISM</u>	<u>FY-92</u>	<u>FY-93</u>	<u>FY-94</u>	<u>FY-95</u>	<u>'L.O.P</u>
I. NUCLEAR POWER PLANT SAFETY AND REGULATION					
1. Nuclear Safety & Regulation (NRC & DOE IAAs)	25.00	25.00	0.00	0.00	50.00
Sub Total:	25.00	25.00	0.00	0.00	50.00
II. PRODUCTION AND DELIVERY SYSTEMS IMPROVEMENT					
Quick Response:					
1. Oil & Gas Pipelines, Conventional Energy (Buy-in mechanism B below) - Gas/Oil Fired-power w/EBRD - Gas flaring reduction w/ World Bank - Gas distribution w/World Bank	0.50	3.50	0.00	0.00	4.00
2. Major hydroelectric system analysis - IQC (See Item K below)	0.00	0.40	0.00	0.00	0.40
3. Analysis of Nuclear Repowering to Gas/Coal - IQC (See Item L below)	0.00	0.20	0.00	0.00	0.20
4. Power Co-Generation/Life Extension Buy-in - See Item A Below	0.00	1.00	0.00	0.00	1.00
Long Term:					
5. Coal Mine Management and Safety (Present Cooperative Agreement with PIER)	1.25	1.25	2.50	2.50	7.50

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6. Energy-environment activities. IAA with the EPA (new mechanism D. below)	0.00	0.65	0.65	0.00	1.30
7. Energy activities PASA with DOI (new mechanism E. below)	0.00	1.30	2.70	2.50	6.50
8. Conventional energy activities PASA with DOE (new mechanism F. below)	0.00	1.00	1.00	1.00	3.00
9. Major Loan Preparation with World Bank and EBRD (new mechanism G. below)	0.00	4.70	7.05	6.25	18.00
10. Long-Term Engineering contract for energy capital project prep and technology (new mechanism I. below, part of same contract as IV.3 below)	0.00	2.50	14.00	16.50	33.00
Sub Total	1.75	16.50	27.90	28.75	74.90

III. PRICING, POLICY AND INSTITUTIONAL REFORM

Quick Response:

1. Private Sector Power Buy-In (See Item A. below)	0.00	0.50	0.00	0.00	0.50
2. Petroleum Commodity Exchange (Buy-In - See Item C. below)	0.80	0.00	0.00	0.00	0.80
3. Unsolicited Proposal (Atlantic Council - See Item M below)	0.00	0.20	0.00	0.00	0.20

Long Term:

4. Energy Industry Exchange and Partnership Program (Present Cooperative Agreement w/ the USEA)	1.60	2.00	1.60	1.60	6.80
5. Energy Training (Buy-In or Unsolicited Proposal Cooperative Agreement - See Item C. Below)	0.00	0.80	2.20	2.20	5.20
6. Long Term contract for policy, pricing and privatization (new mechanism H. below)	0.00	3.00	7.00	10.00	20.00

7. Private Power (Russia) Limited Competition Contract	0.00	2.00	3.00	0.00	5.00
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Sub Total	2.40	8.50	13.80	13.80	38.50
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IV. EFFICIENCY AND PERFORMANCE IMPROVEMENT

Quick Response:

1. District Heating Improvement Contracts	3.80	1.50	0.00	0.00	5.30
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2. Refinery Efficiency Improvement (IQC - See Item J below)	0.00	1.30	0.00	0.00	1.30
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Long Term:

3. Long-Term Engineering contract for energy efficiency and performance improvement (new mechanism I below; part of same contract as II.10 above)	0.00	2.50	8.50	11.00	22.00
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Sub Total	3.80	5.30	8.50	11.00	28.60
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V. EVALUATION, INTERNAL-ENVIRONMENTAL ASSESSMENTS, CONTINGENCY AND TECHNICAL MANAGEMENT SUPPORT (Includes 8A Contract)	0.20	4.20	2.00	1.60	8.00
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VI. UNALLOCATED

Nuclear Safety or Alternatives to Unsafe Nuclear Power Plants	0.00	0.00	25.00	25.00	50.00
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Sub Total	0.00	0.00	25.00	25.00	50.00
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TOTAL FUNDING REQUIREMENT	33.15	59.50	77.20	80.15	250.00
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PROPOSED NEW EEMR PROJECT IMPLEMENTATION MECHANISMS

- A. Buy-in to R&D/EI's Private Sector Energy Development (PSED) Contract. Fund new energy privatization, power upgrading/cogeneration and related activities that should be initiated before July 1993.**
- B. Buy-in to R&D/EI's Energy Technology Innovation Contract to fund new urgent oil and gas and other related conventional energy engineering and related activities that should be initiated before July 1993.**
- C. Buy-in to R&D/EI's Contract for Energy Training or fund unsolicited proposal for Cooperative Agreement. Fund new energy sector training needs that fall outside the scope and/or capacity of the USEA Cooperative Agreement.**
- D. Energy activities IAA with EPA to fund proposed energy related environment activities.**
- E. Energy activities PASA with U.S. Department of Interior (DOI) to fund oil and gas related activities by DOI agencies including the U.S. Geological Survey and the Minerals Management Service.**
- F. Conventional energy activities PASA with DOE to fund energy activities proposed.**
- G. Includes Cooperative Agreements (CA) with the World Bank and EBRD to fund jointly approved technical assistance to catalyze loan preparation. Funds would be in addition to any WB or EBRD financed technical assistance contracts that U.S. firms might otherwise be awarded by the Banks. Substantial advantages generally accrue to the country that supplies consultants.**
- H. A major competitively awarded contract to fund NIS energy privatisation, policy, and institutional reform activities that do not need to be started before July 1, 1993.**
- I. A major competitively awarded contract to fund NIS engineering and related energy activities including new energy efficiency activities that do not need to commence before July 1, 1993.**
- J. IQC Work Order to PRE/CAP's engineering contractor for refinery efficiency improvement services.**
- K. IQC Work Order to PRE/CAP's engineering contractor for major hydro systems analysis.**
- L. IQC Work Order to PRE/CAP's engineering contractor for power analysis.**
- M. Unsolicited Proposal by Atlantic Council to analyze NIS energy policy issues.**

ILLUSTRATIVE AREAS OF COOPERATION BY COUNTRY

ARMENIA

Production/Delivery

- o Coal Resource Assessment
- o Gas Storage/Petroleum Products Storage
- o Thermal Power Plant Completion/Upgrading

Efficiency/Performance Improvement

- o Energy Efficiency in Industry
- o District Heating

Pricing, Policy & Institutional Reform

- o Tariff Rationalization
- o Utility Partnerships

BYELARUS

Production/Delivery

- o Oil/Gas Sector Modernization

Efficiency/Performance Improvement

- o Industrial Process Energy Efficiency
- o District Heating

Pricing, Policy & Institutional Reform

- o Demand Side Management/Energy Planning
- o Energy Pricing Analysis
- o Utility Partnerships

KAZAKHSTAN

Production/Delivery

- o Clean Coal Development for Power
- o Oil/Gas System Efficiency & Promotion
- o Coal Mine Health, Safety, & Reform

Efficiency/Performance Improvement

- o National Energy Efficiency Improvement Program
- o District Heating
- o Refinery Improvement

Pricing, Policy & Institutional Reform

- o Tariff Rationalization
- o Utility Partnerships

KYRGYZSTAN

- Production/Delivery**
 - o Major Hydroelectric System Analysis/Project Preparation
 - o Coal Resource Assessment/Utilization
- Efficiency/Performance Improvement**
 - o District Heating
 - o National Energy Use Improvement Program
- Pricing, Policy & Institutional Reform**
 - o Legal, Regulatory, & Pricing Analysis
 - o National Energy Planning
 - o Utility Partnerships

UKRAINE

- Production/Delivery**
 - o Coal Mine Health, Safety, & Reform
 - o Oil/Gas Contracts, Modernization & Pipeline Improvement
 - o Capital Project Preparation
- Efficiency/Performance Improvement**
 - o District Heating
 - o National Industrial Energy Efficiency
 - o Refinery Improvement
 - o Power Plant Upgrading, Environment, Metering, Coal FBC
- Pricing, Policy & Institutional Reform**
 - o Energy Planning
 - o Privatization

Nuclear

- RUSSIA** o Operational Safety Enhancement, Risk Reduction, Regulation, & Simulator/Training

- Production/Delivery**
 - o Clean Coal for Power
 - o Power Plant Rehabilitation/Upgrading
 - o Alternatives to Unsafe Nuclear Power Plants
 - o Coal Bed/Pipeline/Associated Gas/Methane Recapture
 - o Oil/Gas Sector Improvement Acceleration
 - o Coal Mine Health, Safety & Reform

- Efficiency/Performance Improvement**
 - o District Heating
 - o Metering, Tariff Analysis, & End-Use Efficiency
 - o Refinery Improvement

- Pricing Policy & Institutional Reform**
 - o Metering
 - o Tariff Analysis
 - o Privatization of power and oil/gas
 - o Legislation
 - o Information exchange/Utility Partnerships

Nuclear Safety

- o Operational Safety Enhancement, Risk Reduction, Regulation, and Simulator/Training

**ILLUSTRATIVE BUDGET
(IN \$ MILLION)
By Category**

	Amendments					L.O.P.
	Original	1st	2nd	3rd(*)	4th	
A. NUCLEAR POWER PLANT SAFETY AND REGULATION:						
Safety and Regulation	0.00	3.00	22.00	0.00	25.00	50.00
B. PRODUCTION AND DELIVERY SYSTEMS IMPROVEMENT:						
Coal	0.00	4.30	0.00	0.00	8.30	12.60
Oil and Gas	0.00	9.00	0.00	0.00	26.80	35.80
Power Sector	0.00	4.70	0.00	0.00	18.60	23.30
Sub Total	0.00	18.00	0.00	0.00	53.70	71.70
C. PRICING, POLICY AND INSTITUTIONAL REFORM:						
Reform	0.00	6.40	0.00	0.00	20.10	26.50
Training	0.00	4.40	0.00	0.00	9.20	13.60
Sub Total	0.00	10.80	0.00	0.00	29.30	40.10
D. EFFICIENCY AND PERFORMANCE IMPROVEMENT:						
District Heat	1.80	5.90	0.00	0.00	7.40	15.10
Refineries & Industry	0.00	4.50	0.00	0.00	10.60	15.10
Sub Total	1.80	10.40	0.00	0.00	18.00	30.20
E. EVAL'N, INTERNAL ENVIR'L ASSESS., CONTINGENCY & TECH. MGMT						
	0.00	1.00	0.00	0.00	7.00	8.00
F. UNALLOCATED: **						
Nuclear safety or alternatives to unsafe nuclear power	0.00	0.00	0.00	0.00	50.00	50.00
Sub Total	0.00	0.00	0.00	0.00	50.00	50.00
TOTAL	1.80	43.20	22.00	0.00	183.00	250.00

The Congressional Presentation for \$65 million obligations for FY93 also provided the following breakdown of uses of the \$250 million Life-of-Project funding shown therein:

Technical Assistance:	170 million
Training:	30 million
Commodities:	50 million
Total:	250 million

*No-cost authorization.

**\$30.4 million unallocated budget noted in Amendment # 1 allocated to components A - E.

**EXAMINATION OF THE NATURE, SCOPE AND MAGNITUDE
OF THE ENVIRONMENTAL IMPACT OF
THE ENERGY EFFICIENCY AND MARKET REFORM PROJECT, NO. 110-0002**

A. DESCRIPTION OF THE PROGRAM:

The purpose of the project, as amended, is to expand the improvement of efficiency of energy production and consumption in the New Independent States (NIS, formerly known as the Soviet Union) and to help implement market reforms in this sector. The amended project will provide technical assistance and limited commodities and training to support: (1) pricing and institutional reform; (2) oil, gas and coal production and delivery systems; (3) energy efficiency and environmental improvement in power, industry, and buildings; and, (4) nuclear power plant safety and regulation. All of these activities contribute to economic and energy reform efforts that will enhance the environment, reduce pollution, introduce cleaner fuels and more efficient and safe energy technologies and management systems.

B. RECOMMENDED ENVIRONMENTAL ACTIONS:

The positive implications of this project on promoting energy efficiency and clean energy sources leads to an overall conclusion that the project will have a positive environmental impact. However, interventions (even if limited to technical assistance, training and feasibility studies) in nuclear safety, fossil fuels production and energy pricing reform could introduce incentives for expanding unregulated and risk-producing activities unless appropriate assessment and mitigation of these risks are undertaken. Generally, environmental considerations will be incorporated in technical assistance and project studies, and activities aimed at rehabilitation and/or energy production facilities will require full environmental review. Where negative effects may occur, project developers (consultants and/or participating agency officials) will prepare recommendations to avoid or mitigate these effects.

Environmental assessments will be required for all activities not covered by categorical exclusions. These EAs will be performed by independent teams and reviewed and approved by the NIS Environmental Coordinator/Officer prior to expenditure of project funds on those activities. NIS/TF/EET will initially undertake a scoping exercise in the third quarter of FY93 to determine the extent of required EAs. The cost for completion of the required EAs is incorporated in the project budget.

Action Recommended: Positive Determination under A.I.D.
Regulation 22 CFR 216

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INITIAL ENVIRONMENTAL EXAMINATION

(A) PROGRAM COUNTRY: Newly Independent States
(B) ACTIVITY: Energy Efficiency and Market Reform (No. 110-0002), Amended
(C) FUNDING: \$250 million
(D) PERIOD OF FUNDING: FY 1992 - FY 1996
(E) STATEMENT PREPARED BY: James A. Bever, NIS/TF/EET *JAB*
(F) RECOMMENDED ENVIRONMENTAL ACTION: POSITIVE DETERMINATION
(G) DECISION OF DIRECTOR NIS/TF: *JAB*
Approved

Disapproved
APR 22 1993
Date

(H) DECISION OF NIS/TF ENVIRONMENTAL OFFICER:

ADL
Approved
Disapproved
APR 22 1993
Date