



**The Korean Peninsula  
Energy Development Organization**

## **Mission Statement**

The Mission of KEDO is to:

- Contribute to the strengthening of the international non-proliferation regime while improving the prospects for lasting peace and stability on the Korean Peninsula and beyond;
- Advance the implementation of the Agreed Framework between the United States and the Democratic People's Republic of Korea (DPRK), under which the DPRK agreed to freeze and ultimately dismantle its existing nuclear program, by 1) financing and constructing in the DPRK two proliferation-resistant light-water reactors of the Korean Standard Nuclear Power Plant model and 2) providing the DPRK with an alternative source of energy for heating and electricity production until the first of those reactors is completed;
- Conduct its work in a manner that meets or exceeds international standards of nuclear and conventional safety, environmental protection, and ethical business practices; and,
- Serve as an example of how a cooperative and targeted international diplomatic effort can lead to the resolution of regional security or political crises, and provide a work environment where a multinational staff, with varied cultural, social, and professional backgrounds, can work harmoniously to accomplish organizational, professional, and personal goals.

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## Executive Directors' Statement



I am pleased to submit to the Executive Board and to members of the Korean Peninsula Energy Development Organization (KEDO) the Annual Report called for under Article XII of the Agreement on the Establishment of the Korean Peninsula Energy Development Organization.

The Report covers the activities of KEDO from January 1, 2002, through December 31, 2002, and contains the Organization's Audited Financial Statements for calendar year 2002.

Political events in 2002 posed some of KEDO's toughest challenges since its inception in 1995. In spite of a climate that grew more demanding as the year unfolded, the Organization continued its mandated activities and maintained useful contact with its counterparts at the Light-Water Reactor (LWR) project site at Kumho, Democratic People's Republic of Korea (DPRK). Events between the close of the reporting time and publication of this report have dramatically altered the course of progress described here. This report does not attempt to address these events but covers developments in the covered activity period exclusively.

In the first quarter of 2002, KEDO and the DPRK held negotiations on an Independent Satellite Communications Network, a direct air route between the project site and Yangyang airport, Republic of Korea (ROK), a training program for the operation and maintenance of the light-water reactors, and labor. In these meetings, KEDO and the DPRK agreed upon the selection criteria for DPRK operation and maintenance personnel. In June, KEDO and the DPRK began the selection of candidates for training. In addition, twenty-five members of the DPRK's nuclear regulatory authority attended a three-week orientation program at the Korea Institute of Nuclear Safety's training facility at Taejon, ROK, in July. The program covered fundamental nuclear safety regulation, quality assurance, engineering, radiation and radioactive waste safety, environmental impact and safety evaluation, and inspections.

In July, KEDO opened a direct air route between the DPRK and ROK to support emergency medical evacuation and supplement the established sea route between Sokcho (ROK) and Yangwha (DPRK) ports for the transportation of personnel and materials to and from the project site. The inaugural flight took place on July 20, and employed a DPRK carrier. A working flight followed on October 15, to transport a KEDO delegation to a project review meeting at the site. KEDO also marked the pouring of first concrete for the LWR project on August 7, in a well-publicized ceremony at the construction site in Kumho District, DPRK. Representatives from the Executive Board of KEDO, from eight of its member states, and several contributing states attended.

In October, with news of the DPRK's acknowledgement that it was engaged in the production of highly enriched uranium (HEU), the Organization reflected on the course of its activities. On November 14, representatives of the Executive Board met in New York to discuss the implications of the DPRK's acknowledgement. The Executive Board decided to

suspend heavy fuel oil deliveries to the DPRK beginning with the December shipment. The Board noted that future shipments would depend on the DPRK's concrete and credible actions to dismantle completely its HEU program. It also decided to review other KEDO activities in this light. By the close of 2002, the political situation between the DPRK and member governments, however, remained unresolved and KEDO had fewer contacts with the DPRK.

KEDO has relied upon support from its members, and other contributors. This Annual Report and the attached Audited Financial Statements provide a means to account for our activities to our member and contributing countries. I hope that this report will enhance your understanding of KEDO's activities, and that, if future developments warrant it, we may rely on your continued cooperation and support.

A handwritten signature in blue ink, appearing to read 'Charles Kartman', with a long horizontal flourish extending to the right.

Charles Kartman  
Executive Director  
New York, December 31, 2002



The Governments of Japan, the Republic of Korea (ROK) and the United States signed the Agreement on the Establishment of the Korean Peninsula Energy Development Organization (the Agreement) on March 9, 1995, with the objective of resolving the DPRK nuclear issue, as referred to in the Agreed Framework Between the United States of America and the Democratic People's Republic of Korea (the Agreed Framework), signed in Geneva on October 21, 1994. In September 1997, the European Atomic Energy Community became a member of KEDO and joined Japan, the ROK, and the United States on KEDO's Executive Board. Other members of the Organization are the Governments of Argentina, Australia, Canada, Chile, the Czech Republic, Indonesia, New Zealand, Poland, and Uzbekistan.

As stipulated in the Agreement, the Organization was established to:

1. Provide for the financing and supply of a light-water reactor project in the DPRK consisting of two reactors of the Korean Standard Nuclear Plant model with a capacity of approximately 1,000 megawatts each;
2. Provide for the supply of interim energy alternatives in lieu of the energy from the DPRK's graphite-moderated reactors pending construction of the first light-water reactor unit; and
3. Provide for the implementation of any other measures deemed necessary to accomplish the foregoing or otherwise to carry out the objectives of the Agreed Framework.

The DPRK's full implementation of its undertakings, as described in the Agreed Framework, is the primary condition for the Organization in fulfilling these objectives.

### Structure and Staff of the Organization

The KEDO staff currently consists of fifty professional and support personnel. In accordance with the Agreement, nationals of the original members and other Executive Board members are fairly represented among the professional staff with due regard to the importance of securing the highest standards of integrity, efficiency, and technical competence.

Mr. Charles Kartman, former U.S. representative to KEDO's Executive Board, has served as Executive Director since his appointment by the Executive Board on May 1, 2001.

Mr. Kyu-Hyung Cho assumed the post of Deputy Executive Director on July 31, 2000. Mr. Akira Nakajima served as Deputy Executive Director from January 14, 2001 until September 23, 2002. The incumbent, Mr. Hideto Mitamura, assumed Mr. Nakajima's post from September 26, 2002.

**S**even divisions operate under the direction of the Directors: Financing and Heavy Fuel Oil, General Affairs, Legal Affairs, Nuclear Safety and Quality Assurance, Policy and DPRK Affairs, Project Operations, and Public and External Promotion and Support.

The Financing and Heavy Fuel Oil Division has been responsible for arranging for the financing of the LWR project, providing for the supply of heavy fuel oil (HFO), and for

ensuring the timely delivery of HFO to the DPRK. The General Affairs Division provides overall administrative support for the Organization, handles non-LWR contracts, and budgetary matters. The Legal Affairs Division provides advice on issues of public and private international and domestic law and directs the work of outside counsel. The Nuclear Safety and Quality Assurance Division oversees all nuclear safety and quality assurance matters related to the LWR project.

The Policy and DPRK Affairs Division is responsible for coordination of protocol negotiations and other contacts with the DPRK. The Project Operations Division has managed the design and construction of the LWR plants, while the Public and External Promotion and Support Division is responsible for outreach efforts to build understanding and support for the LWR and HFO projects, including relations with the media. In May 2002, Framatome ANP purchased KEDO's Technical Support Consultant (TSC), the architecture/engineering firm, Duke Engineering and Services (DE&S). Framatome ANP/DE&S, as directed by the Project Operations Division, assists KEDO in implementation of the LWR project.

### KEDO Office in Kumho

KEDO maintains eight staffers from its Executive Board members at the LWR project site in Kumho, DPRK. The KEDO Office at Kumho (KOK) oversees day-to-day operations at the site and maintains contact with DPRK authorities to help ensure the smooth and expeditious implementation of the LWR project. The staff's responsibilities include ensuring the safety and security of all KEDO persons at the site, exercising all consular protection functions on behalf of all KEDO persons in the DPRK, and coordinating all contracts between KEDO's contractors and subcontractors and the DPRK company responsible for the provision of DPRK workers, goods, facilities, and other services. ■



During 2002, meetings and negotiations with the DPRK continued in support of Light-Water Reactor (LWR) project construction and heavy fuel oil (HFO) deliveries. Throughout the year, KEDO and the DPRK met at the technical level to coordinate activities related to LWR construction.

KEDO and the DPRK held an experts meeting in Pyongyang, January 12–15, 2002, to discuss technical matters related to the opening of a direct air transportation route between the ROK and the DPRK. Both sides agreed to open an eastern sea air route between Sondok Airport, in the North, and Yangyang Airport, in the South. Air Koryo, in the initial stage, was selected as the service provider. A DPRK delegation of ten officials visited the ROK from May 19 to 24, 2002, to conduct a pre-flight inspection of Yangyang airport and its alternate, Gimhae International Airport. The two sides met again in Pyongyang on June 22–25, 2002, and agreed on the ways of arranging ground services for Air Koryo at South Korean airports. A round-trip test flight was conducted on July 20 and the first official flight between Sondok and Yangyang airports took place on October 15, 2002.

From April 30 to May 3, KEDO and the DPRK held a High-level Experts Meeting (HLEM) at Hyangsan, DPRK, where issues of mutual concern were discussed, among others, an Independent Satellite Communications Network (ISCN), a direct air route, training, construction schedule, and labor. At this meeting, KEDO provided the DPRK with the LWR project construction schedule and briefed them on the major milestones within the project. Various follow-up experts meetings in the area of ISCN, training, labor, and safety were arranged during the subsequent months to develop and/or implement agreements produced at the HLEM.

**O**f particular note was a KEDO-DPRK experts meeting held in Pyongyang from October 22–26, 2002, to discuss the establishment of an ISCN. KEDO explained that its construction schedule was based on the assumption that an ISCN would be operational by the first concrete pouring, which took place in August 2002, and that further delay in the establishment of an ISCN would negatively affect construction. The DPRK repeated its previous position that it could not allow an ISCN due to national security concerns and delays in the LWR project. Both sides failed to produce an agreement on this issue.

Regarding nuclear liability negotiations, in May, KEDO and the DPRK entered into the first negotiations on the Nuclear Liability Protocol at Hyangsan. Two additional meetings were held between May and October to discuss KEDO's draft protocol and the DPRK's comments. The last round of negotiations was held from October 29 to November 1 in New York, against growing concerns over allegations that the DPRK had a highly enriched uranium program. At that meeting, KEDO and the DPRK agreed on a combined draft protocol, which could serve as a basis for further negotiations in the future.

Mr. Charles Kartman, Executive Director, visited the construction site at Kumho on June 4–5 and August 7 to attend the opening ceremony of the On-the-Job Training course and the first concrete pouring ceremony, respectively. During those visits, Mr. Kartman had an opportunity to meet with

Mr. Kim Hui Moon, Director General of the DPRK General Bureau for the LWR Project (DPRK GB).

While progress was made as planned in the first two-thirds of the year, reports of the DPRK's admission in October of a program to produce highly enriched uranium (HEU) affected KEDO's day-to-day activities. On November 14, KEDO's Executive Board met to discuss the implications of the DPRK's acknowledgement that it was pursuing a HEU program and issued a statement\* deciding that HFO supplies would be suspended beginning with the December shipment unless the DPRK took "concrete and credible actions to dismantle completely" its HEU program. The Board also decided that other KEDO activities would remain under review. Notwithstanding the suspension of HFO shipments, the construction of the LWR continued as scheduled throughout the year. The political climate for the remainder of 2002, however, resulted in a general setback of meetings with the DPRK.

\* The text of the statement from the November 14 Executive Board meeting reads as follows:

### Statement by KEDO Executive Board

(November 14, 2002)

The Executive Board of the Korean Peninsula Energy Development Organization (KEDO) met today in New York to discuss the implications of North Korea's acknowledgement that it is pursuing a program to produce highly-enriched uranium for nuclear weapons. The Executive Board, consisting of the United States, the Republic of Korea, Japan, and the European Union, agreed on the following:

- To condemn North Korea's pursuit of a nuclear weapons program, which is a clear and serious violation of its obligations under the Agreed Framework, the Nonproliferation Treaty (NPT), its IAEA Safeguards Agreement, and the Joint South-North Declaration on the Denuclearization of the Korean Peninsula.
- North Korea's nuclear weapons program is a shared challenge to all responsible states.
- This program threatens regional and international security and undermines the international nonproliferation regime based on the NPT.
- North Korea must promptly eliminate its nuclear weapons program in a visible and verifiable manner.
- South-North Korea, Japan-North Korea, and EU-North Korea dialogues serve as important channels to resolve bilateral and international concerns and to call upon North Korea to visibly and quickly honor its commitment to give up its nuclear weapons program. North Korea's future relations and interaction with KEDO and the members of its Executive Board hinge on the complete and permanent elimination of its nuclear weapons program.
- Heavy fuel oil deliveries will be suspended beginning with the December shipment. Future shipments will depend on North Korea's concrete and credible actions to dismantle completely its highly-enriched uranium program. In this light, other KEDO activities with North Korea will be reviewed.
- The Executive Board will continue to consult on next steps with regard to future activities of KEDO. ■



From January 1, 2002, through December 31, 2002, KEDO continued work on the light-water reactor (LWR) project at the LWR site under the Turnkey Contract (TKC) with the Korea Electric Power Corporation (KEPCO).

Construction of the LWR plants entered an important new phase when, in early August, first concrete was poured for the Unit 1 Reactor Containment Building. KEDO held a major ceremony to commemorate the first concrete pouring on August 7 at the LWR site. Representatives of all the Executive Board members, senior representatives from KEDO members, senior staff from the Secretariat, KEDO contractors and subcontractors, international media, and DPRK officials attended. As of December 31, 2002, the LWR project was approximately 28% complete, and over 1,400 personnel were working at the LWR site.

**B**ecause of the withdrawal of roughly half of the DPRK workforce from the site in April 2000, KEPCO has maintained critical activities on the construction schedule through the use of “substitute” labor. In February 2001, KEDO approved the use of laborers from Uzbekistan to bring the staffing levels closer to the construction plan’s levels. During 2002, KEDO was unable to reach agreement with the DPRK to raise its workforce to approximately one hundred persons. Additional deployments of labor from Uzbekistan occurred in 2002, bringing its workforce to approximately 600 by year’s end. Because the use of third-country labor was not part of the original TKC, housing and other support facilities at the site were insufficient to accommodate the additional workers. In 2002, KEPCO completed the construction of additional housing and ancillary facilities to support the use of Uzbek workers under a change order issued by KEDO in June 2001. The current agreement for the use of labor from Uzbekistan expires in March 2003.

The shift to a new turbine-generator supplier was completed with Amendment 1 to the TKC on May 1, 2002. Doosan and its subcontractor, Hitachi/Toshiba, came to terms with KEPCO and KEDO after solving several questions regarding liability. Incorporated into Amendment 1 was the change order for the switchyard configuration. As of the close of 2002, two change orders were outstanding: additional facilities for the Uzbek workers and reevaluation of the concrete anchorage systems. Approval of Amendment 1 resulted in completion of several backlogged turbine-generator milestones.

Training in operation and maintenance for the DPRK plant operators began in late 2001, with a Senior DPRK Management Observation Tour hosted by the European Union (Spain and Sweden) and the ROK. Candidates for the first classroom training (CRT) class were selected in May 2002 and training took place at the newly completed Kumho Nuclear Training Center (KNTC) between August and October. Following the completion of the CRT, the first training group should have participated in On-the-Job Training (OJT) in the ROK starting November 2002. However, the DPRK indefinitely postponed their participation in the OJT. The second session of classroom training, scheduled to start at the KNTC in April 2003, has been delayed as well. Its

commencement depends upon the DPRK’s submission of a list of candidates (not yet received as of December 31, 2002).

### Site Work Highlights

□ Power block excavation began with a total of 688,486 m<sup>3</sup> of rock and soil excavated to make way for Units 1 and 2.

□ The new 2,180 m<sup>3</sup> (22,690 ft<sup>2</sup>) hospital, which will accommodate up to 12 patients, was officially dedicated in July.

□ The ocean breakwaters that serve as the intake and discharge channels for the plant-cooling seawater, and the barge docking facility were completed in 2002 (intake in May, discharge in September). Since KEDO and the DPRK have yet to approve procedures for the use of the docking facility, the cargo/passenger ship continues to use the remote Yangwha port.

□ Work Completed: religious facilities (3), additional workers’ living accommodations, Balance of Plant (BOP) warehouse, rebar workshop, passenger terminal, a concrete batch plant, laborer training facility, Kumho Nuclear Training Center, permanent slope protection, and a temporary railroad bypass.

□ Work Continued: simulator building, KEPCO and subcontractor living quarters, permanent water supply distribution, intake canal, community centers, restaurant and welfare center for third country workers, gymnasium, playground area, guest house, site roads and sidewalks.

□ Work Started: cooling water discharge structures, excavation and foundation concrete for ancillary power block buildings (auxiliary, fuel and turbine buildings), power plant administration building, and a permanent bridge over intake canal.

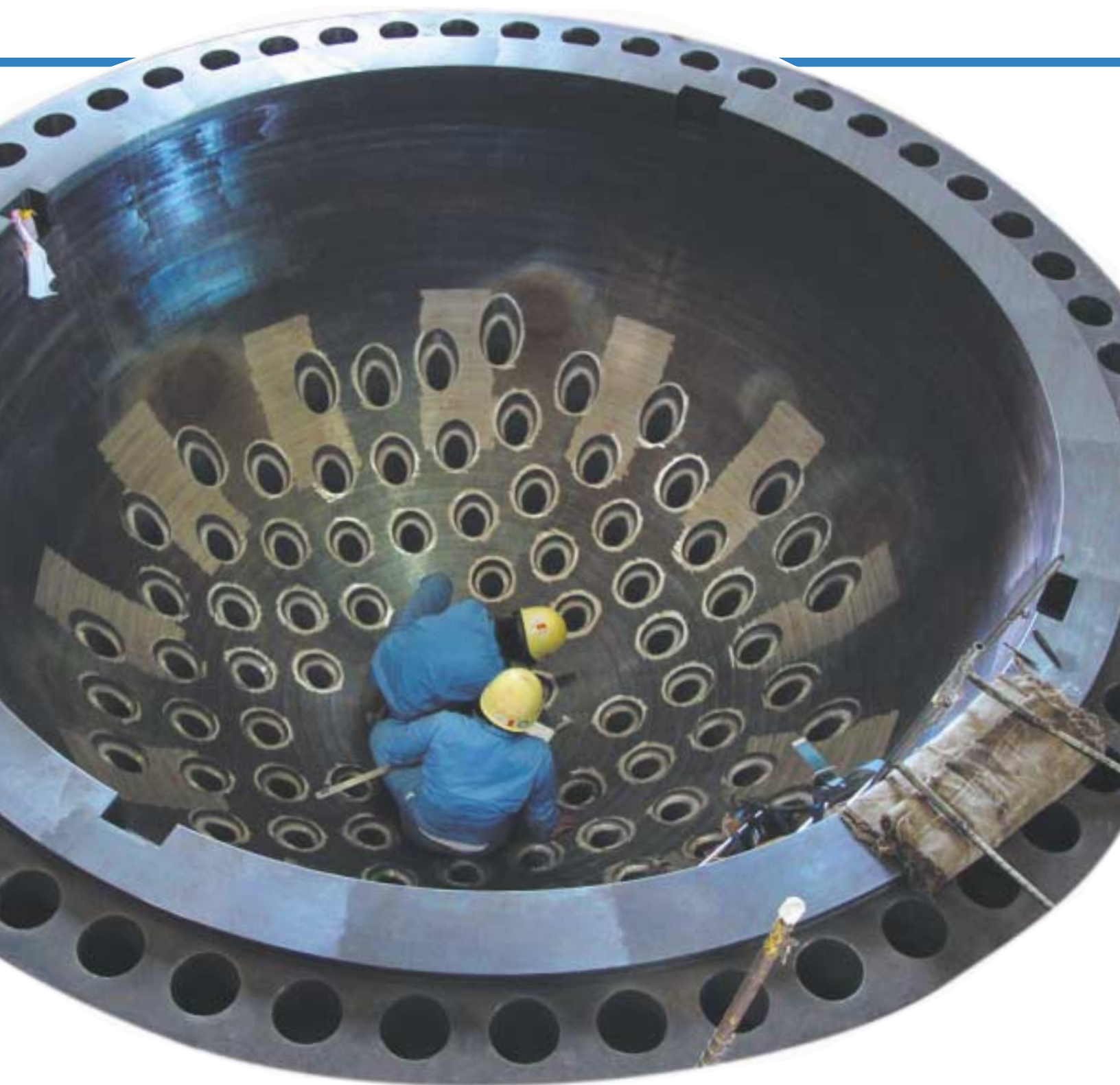
*Manufacture of the reactor vessel closure head*

### Offsite Highlights

Design and analysis activities continued as well. Work progressed in the following areas during 2002:

□ Amendment 1 of the Preliminary Safety Analysis Report and the Environmental Report (PSAR/ER) was issued in February.

□ Development of Design Base Drawings (for example, piping, instrumentation, HVAC, and ventilation barriers).



□ Final Contract Schedule was issued in May and the Integrated Project Schedule was issued in September.

**A**dditionally, technical reviews were completed for twenty-three procurement specifications. Solicitations of interest in bidding to supply project materials and equipment were issued for the same twenty-three procurement packages. KEDO also posted notifications on its website. Sixty-two companies from KEDO member countries were recommended over the last two years by KEDO for inclusion on KEPCO's bidder lists, and company evaluations

were completed for twenty procurement packages. KEPCO will be issuing invitations to tender to companies recommended by KEDO over the next several years. Out of the 205 procurement packages, sixty-two packages were awarded as of December 31, 2002.

Substantial progress was made in manufacturing the Unit 1 Reactor Vessel (nozzle cladding and machining, head dome and flange construction), Unit 2 Reactor Vessel (connecting upper and intermediate shells, forging the lower shell, procured material for head dome and flange), Unit 1 Steam

Generators (connecting the shells, tube hole drilling completed on both steam generators), Unit 2 Steam Generators (completed cladding of the tube sheet), Unit 1 and 2 Pressurizers (shell materials procured and forged; cladding started) and reactor coolant pump casings (cladding on both Units). Detailed design work and procurement specifications were completed on the Unit 1 Reactor Drain Tank, which is the first nuclear component that was scheduled for delivery to the site.

With the signing of Amendment 1 to the TKC, procurement and manufacturing of turbine-generator components commenced. Doosan started issuing turbine-generator material purchase requisitions in October, following the submittal of detailed project implementation plans and manufacturing schedules in July.

KEDO continued the development of the Export Control Document Management Plan, working closely with the U.S. Department of Energy, ROK Ministry of Science and Technology, KEPSCO and Westinghouse. The Export Control Document Management Plan sets forth the requirements necessary to meet the export control regulations of KEDO's member governments, and will cover all facets of document control including transmittal to and maintenance at the LWR site.

## Nuclear Safety Activities

**K**EDO's nuclear safety responsibilities are guided by its Nuclear Safety Policy, which states that all LWR project activities shall be conducted in a manner that ensures nuclear safety is accorded the highest priority and will not be compromised for any reason. This policy is carried out through a unique system, the Nuclear Safety Confirmation System (NSCS), in place since February 1998 to confirm the safety and reliability of the reactors, while overseeing all nuclear safety aspects of the LWR project.

### Nuclear Safety Confirmation System

KEDO relies heavily on outside expertise to support its safety activities through the NSCS. The key contributors to the NSCS have been the Korea Institute of Nuclear Safety (KINS), the Nuclear Safety Advisory Group (NSAG), and the International Atomic Energy Agency (IAEA).

NSAG met in April and October to review the progress of the LWR project and the status of nuclear safety-related matters. In June, seven of the nine members of NSAG were re-confirmed for another two-year term of service, while two members were newly appointed. The Group's October meeting was held at the LWR site for the first time. While at the site the Group met with representatives from the DPRK's nuclear regulatory authority, the State Nuclear Safety Regulatory Commission (SNSRC), and toured the site.

**I**n December, KEDO completed its action plans to address nuclear safety-related recommendations made by KINS and the IAEA during their reviews of the PSAR/ER. These action plans outline specific steps for KEDO to take to resolve issues identified in the recommendations.

KINS conducted safety inspections of KEPSCO at the LWR site in August and October, and of Doosan in the ROK in September, conforming the adequacy of construction and manufacturing work of the LWR project. As follow-up to its review of the PSAR, KINS conducted visits to the LWR site in March and September to inspect the geology and foundations for the containment and primary auxiliary buildings. No major issues were identified during these inspections and site visits. To better manage the findings of inspections, KINS developed a computerized administrative database for use by KEDO, KINS, and KEPSCO.

### Regulatory Activities with the DPRK

From 1998 through the end of the reporting period, KEDO met with the DPRK nuclear regulatory authority on a periodic basis to discuss nuclear safety-related issues. In addition to discussing the safety review of the LWR plants, KEDO discussed with the DPRK additional ways to support the strengthening of its regulatory infrastructure.

**A**s a follow-up activity of the PSAR/ER review, KEDO provided the DPRK with the first amendment to these documents in February. Also, in February, KEDO concluded its commitment to provide safety-related documents, when the last agreed-to documents were given to the DPRK nuclear regulator. In total, KEDO has provided 660 codes and standards and other technical documents to the SNSRC. In March, the DPRK inspected, alongside KINS, the power plant foundations, and in July KEDO met with the DPRK for additional discussions on site geology. From July 3–26, twenty-five representatives from the DPRK participated in KEDO's Orientation Program for Regulatory Staff. The training took place at KINS' offices in the ROK and included visits to the LWR Project reference plant at Ulchin, ROK. The training was well received, and the DPRK expressed its interest in continuing the Orientation Program in 2003. In August and early October, the DPRK, in cooperation with KINS, conducted inspections of KEPSCO at the LWR site.

KEDO and the DPRK held the Eighth Nuclear Safety Experts Meeting at the LWR site in early October. Progress was made on a range of issues, including guidelines and schedules for inspections, further training under the Orientation Program, and technical interface requirements for the electricity transmission system.

### Quality Assurance Program

KEDO is responsible for providing appropriate controls for and oversight of LWR project procurement and quality-affecting activities of KEPSCO, its subcontractors and suppliers. In June and October, KEDO met with the DPRK to discuss quality assurance activities. In July and September, respectively, KEDO's Quality Assurance Program concluded audits of KEPSCO at the LWR site and of Doosan in the ROK. In November, KEDO witnessed the concrete compression tests associated with the concrete pouring of the containment building. No non-conformances were identified during these reviews. Other KEDO quality assurance activities included indoctrination training, management assessments, internal quality audits, and maintenance of the KEDO Quality Assurance Procedure Manual. ■





In accordance with the KEDO Agreement, one of the purposes of the Organization has been to provide for the supply of interim energy alternatives to the DPRK in lieu of the energy foregone due to the freeze of the DPRK's graphite-moderated reactors, pending completion of the first light-water reactor unit. The Agreed Framework states that this alternative energy would be provided in the form of heavy fuel oil (HFO) for heating and electricity production and that the amount delivered will reach a rate of 500,000 metric tons (mts) annually, in accordance with an agreed schedule of deliveries. The U.S. and DPRK agreed separately that 150,000 mts would be provided in the year ending October 21, 1995 (one year after the date of the Agreed Framework and the date chosen to represent the end of the HFO Year) and that deliveries totaling 500,000 mts would be made for each 12-month period thereafter. KEDO's Executive Board was responsible for establishing the schedule and amounts of the individual HFO deliveries made by KEDO based on the Executive Board's determination of KEDO's ability to pay for those deliveries out of received or promised contributions to KEDO's HFO Account, or, if necessary, to the Unrestricted or Other Accounts when such received or promised contributions were available in support of HFO financing, as well as its determination of DPRK consumption and storage capacities. Through December 31, 2002, KEDO delivered approximately 3.52 million mts of HFO to the DPRK.

HFO deliveries and related costs are discussed below on the basis of the calendar year, rather than the HFO year (i.e., ending on October 21, 2002). A summary of the status of the 2002 HFO Year deliveries at the end of the period (i.e., the calendar year), however, is included in the discussion.

### HFO Deliveries in 2002

KEDO delivered 456,893 mts of HFO to the DPRK in the twelve month period ending December 31, 2002, at a cost (including commodity, freight and other charges) of \$69.77 million. (Dates and amounts of the individual deliveries and breakdown of costs by month are in Appendix 1.)

Total 2002 HFO obligations, including \$34.35 million in 2001 HFO Year obligations carried over into 2002 (see 2001 KEDO Annual Report) and \$.42 million in 2002 flow meter expenses, were \$104.54 million.

2001 Carry Over	\$(34.35) million
2002 HFO Deliveries	(69.77)
2002 Flow Meter Expenses	(0.42)
<b>Total Obligations</b>	<b>\$(104.54) million</b>

KEDO used \$104.54 million in contributions available for HFO toward those obligations plus \$0.17 million in interest received on those contributions (net of interest expenses on the bank loans carried over from 2001), as follows:

2002 Contributions (see Appendix 2)	
HFO Account	\$88.03 million
Unrestricted Account	16.25
<b>Sub-total</b>	<b>\$104.29 million</b>

Net Interest Received	\$0.17 million
Accounts Payable	0.33
<b>Total</b>	<b>\$104.79 million</b>

45,665 mts of the 456,893 mts of HFO delivered in 2002 were needed to complete the supply of 500,000 mts for the 2001 HFO Year. The remaining 411,228 mts were delivered for the 2002 HFO Year by mid-December. In accordance with the Executive Board decision of November 14, 2002, HFO deliveries were suspended at that point pending concrete and credible DPRK actions to dismantle completely its highly enriched uranium program.

### HFO Flow Meters

To support the judgement that, in accordance with the Agreed Framework, HFO provided by KEDO was used only for heating and electricity production, KEDO established a program to monitor consumption of the HFO based on measurements gathered from KEDO-installed flow meters at seven power plants and from the computerized control room of a new, small power generating facility in the DPRK. To further support estimates of consumption, additional data in the form of storage tank level readings was to be provided by the DPRK.

In support of this flow meter regime, the DPRK committed to: 1) consume HFO provided by KEDO only at those seven plants and one power generating facility; 2) provide KEDO with daily flow meter readings from each of those plants on a fortnightly basis; 3) inform KEDO immediately of any malfunctions observed in the monitoring equipment; and 4) accommodate a schedule of maintenance and upgrade visits by KEDO flow meter teams to ensure the optimal performance of the monitoring system.

The flow meter systems installed by KEDO consist of the actual flow meters, data recording equipment capable of maintaining a historical record of meter readings, and power conditioning units designed to ensure that the power provided to the equipment meets the required specifications. Various repairs and modifications were made to the meters and related equipment over the years in response to malfunctions and other failures attributed to the effects of the harsh operating conditions found in the DPRK, including the fluctuating frequency of the local power provided to the equipment and temperature and other environmental extremes (e.g., excessive coal dust) in the power plants themselves.

Following the Executive Board decision to suspend HFO deliveries (see above), the DPRK suspended its cooperation with the flow meter program and has not provided data from the meters since the final reports for October were received in late November.

Based on measurements gathered from the KEDO-installed flow meters at the seven power plants and from the computerized control room at the power generating facility, or, when necessary, on consumption figures provided by the DPRK, the DPRK consumed a total

of 371,636 mts of HFO during the calendar year through the end of October, or 42,372 mts less than the 414,008 mts of HFO delivered by KEDO during that period. That 42,372 mts brought the total amount in storage at the end of the period to 338,444 mts. Total amounts in storage during the period ranged from a low of 259,146 mts in February to the high of 338,444 mts in October.

**A**lthough there were some equipment malfunctions and/or discrepancies between KEDO and DPRK measurements of consumption in 2002, the overall reliability of the meters improved significantly during the course of the year. Efforts were continuing at the time HFO deliveries were suspended to modify or upgrade the equipment, as necessary to maintain acceptable levels of performance. When the equipment does malfunction, KEDO provisionally accepts DPRK consumption figures, provided that those figures were consistent with the operating history and capabilities of the plants in question.

**NOTE:** The HFO flow monitoring regime consists of ultrasonic type flow meters at the Sonbong, Chongjin, Pyongyang and Pukchang power plants and Coriolis type meters at the East Pyongyang, Suncheon and Youngbyon power plants. The ultrasonic flow meters are particularly well-suited to the higher HFO flow conditions at the exclusively oil-fired plant at Sonbong, which consumes HFO at a higher rate than the primarily coal-fired plants at Chongjin, Pyongyang and Pukchang, which co-burn comparatively smaller amounts of HFO. Although the ultrasonic meters are slightly less accurate under certain low flow conditions at those latter three plants, such conditions are relatively rare and the combination of meter readings and storage tank level readings provided by the DPRK have provided a reliable indication of HFO consumption at the plants. The Coriolis type flow meters, which are more accurate than ultrasonic flow meters under all flow conditions, including lower flow conditions, encountered at primarily coal-fired plants, were chosen for subsequent installations at the co-fired Suncheon and East Pyongyang power plants and at the small oil-fired Youngbyon power plant. All initial installations included data recorders and back up power supply units. ■



The original members of KEDO are Japan, the ROK, and the United States.

Article V(b) of the Agreement on the Establishment of the Korean Peninsula Energy Development Organization states that “additional states that support the purposes of the Organization and offer assistance, such as providing funds, goods, or services to the Organization, may, with the approval of the Executive Board, also become members of the Organization.”

In accordance with Article XIV(b) of the Agreement, “states approved by the Executive Board for membership in accordance with Article V(b) may become members by submitting an instrument of acceptance of this Agreement to the Executive Director, which shall become effective on the date of receipt by the Executive Director.”

**T**he Governments of Japan, the ROK, and the United States amended the Agreement on September 19, 1997, to include international organizations, including regional integration organizations, as eligible for membership in the Organization and for representation on the Executive Board on the basis of substantial and sustained support for the Organization. At that time, KEDO and the European Atomic Energy Community (the “Community”), an organization within the European Union, concluded an accession agreement, calling for the Community’s representation on the KEDO Executive Board for a term to coincide with its substantial and sustained support to KEDO.

In December 2001, KEDO and the Community concluded a five-year extension of the September 1997 KEDO-Euratom Accession Agreement. The agreement provides for an increase in the Community’s contribution to KEDO from 15 to 20 million Euros per year, continued representation on KEDO’s Executive Board, and increased representation on the Secretariat’s staff.

The following ten states or international organizations, including regional integration organizations, are members of KEDO under Article V(b) of the Agreement, effective from the dates shown:

New Zealand	June 26, 1995
Australia	September 19, 1995
Canada	November 24, 1995
Indonesia	May 7, 1996
Chile	July 17, 1996
Argentina	September 5, 1996
European Atomic Energy Community (EAEC)	September 19, 1997
Poland	September 25, 1997
Czech Republic	February 9, 1999
Uzbekistan	December 11, 2000

NOTE: KEDO welcomes as members other states that support the work of the Organization. In practice, the following procedures are followed in admitting new members:

(1) States or entities interested in membership formally notify the Executive Director of KEDO of their interest in membership. The Executive Director promptly conveys the fact of such notification to the members of the Executive Board for their consideration.

(2) KEDO reaches agreement with the prospective member on a draft instrument of acceptance.

(3) In an Executive Board Resolution, the Executive Board approves the membership of the prospective member and authorizes the Executive Director to receive the instrument of acceptance in substantially the form agreed under Step (2) above.

(4) The executed instrument of acceptance, signed by the Minister of Foreign Affairs or other representative with full powers, is submitted to the Executive Director of KEDO. Membership becomes effective on the date the instrument of acceptance is received by the Executive Director.

Instruments of acceptance should be along the following lines:

“Pursuant to instructions from my Government, I have the honor to notify the Korean Peninsula Energy Development Organization that the Government of (name of intending member) hereby accepts the Agreement on the Establishment of the Korean Peninsula Energy Development Organization, done at New York on March 9, 1995. The present note constitutes the instrument of acceptance of the Government of (name of intending member) to the aforesaid Agreement, in accordance with Article XIV(b) thereof.” ■

## Appendix 1: HFO Deliveries

### 2002 Deliveries

MONTH OF DELIVERY	AMOUNT DELIVERED IN METRIC TONS	TOTAL COST (COMMODITY PLUS FREIGHT)	COST PER METRIC TON
January	-	-	158
February	46,003	5,912,587	129
March	50,303	6,842,688	136
April	56,396	9,472,433	168
May	42,686	6,617,548	155
June	43,417	6,730,924	155
July	44,232	6,857,283	155
August	43,255	6,705,853	155
September	44,199	6,852,128	155
October	43,516	6,746,357	155
November	42,886	6,721,927	-
December	-	-	-
<b>Totals</b>	<b>456,893</b>	<b>69,459,426</b>	<b>152</b>

Other (Marine insurance and freight forwarding services): \$313,893

**Total Cost: \$69,773,319**

## Appendix 2: Financial Support

The following schedule was prepared on a cash basis of accounting and does not reflect announced financial support.

### A. Chronology of Financial Support to KEDO

In U.S. Dollars

DATE	COUNTRY	ADMINISTRATION	LWR	INTEREST*	HFO	UNRESTRICTED	OTHER	TOTAL
03/09/1995	Japan	2,800,000	3,000,000 <sup>(1)</sup>					5,800,000
04/04/1995	Canada				1,054,482			1,054,482
04/05/1995	United Kingdom						1,000,000 <sup>(2)</sup>	1,000,000
04/19/1995	New Zealand				334,750			334,750
05/25/1995	Singapore					300,000		300,000
06/02/1995	ROK	1,800,000						1,800,000
06/29/1995	Australia				5,000,000			5,000,000
06/30/1995	Finland					93,833		93,833
08/07/1995	Malaysia					300,000		300,000
09/11/1995	Netherlands					500,000		500,000
10/31/1995	United States <sup>(3)</sup>	4,000,000			5,500,000			9,500,000
11/01/1995	Thailand					300,000		300,000
11/14/1995	Indonesia				324,895 <sup>(4)</sup>			324,895
<b>1995 Total</b>		<b>8,600,000</b>	<b>3,000,000</b>		<b>12,214,127</b>	<b>1,493,833</b>	<b>1,000,000</b>	<b>26,307,960</b>
01/02/1996	Finland						22,810 <sup>(5)</sup>	22,810
01/24/1996	Brunei					352,793		352,793
03/08/1996	Japan						19,000,000 <sup>(6)</sup>	19,000,000
04/02/1996	Canada						735,565 <sup>(7)</sup>	735,565
04/30/1996	Germany					1,011,485		1,011,485
04/30/1996	New Zealand				343,025			343,025
05/03/1996	Australia				1,590,000			1,590,000
05/31/1996	ROK	2,700,000						2,700,000
06/20/1996	United States				22,000,000			22,000,000
06/25/1996	Singapore					100,000		100,000
07/09/1996	Netherlands					290,192		290,192
07/15/1996	ROK		6,000,000 <sup>(1)</sup>					6,000,000
07/16/1996	EAEC**						3,792,000 <sup>(8)</sup>	3,792,000
07/23/1996	Philippines					150,000		150,000
07/24/1996	Greece					25,000		25,000
07/26/1996	Norway					250,000 <sup>(9)</sup>		250,000
08/26/1996	Argentina					200,000		200,000
09/30/1996	Finland					100,000		100,000
10/16/1996	Brunei					70,897		70,897
10/21/1996	Indonesia				325,012 <sup>(4)</sup>			325,012
11/22/1996	Switzerland					118,148		118,148
12/06/1996	EAEC						2,470,000 <sup>(10)</sup>	2,470,000
12/18/1996	New Zealand				355,700 <sup>(11)</sup>			355,700
12/27/1996	ROK	165,000						165,000
<b>1996 Total</b>		<b>2,865,000</b>	<b>6,000,000</b>		<b>24,613,737</b>	<b>2,668,515</b>	<b>26,020,375</b>	<b>62,167,627</b>
02/20/1997	Japan	3,140,000						3,140,000
03/27/1997	Japan	590,000						590,000
03/31/1997	Canada						906,454 <sup>(7)</sup>	906,454
04/22/1997	Oman					50,000		50,000
04/23/1997	Australia				1,543,200			1,543,200

\*Interest paid or foregone on LWR loans. \*\*European Atomic Energy Community.

DATE	COUNTRY	ADMINISTRATION	LWR	INTEREST*	HFO	UNRESTRICTED	OTHER	TOTAL
05/15/1997	United States	4,000,000			21,000,000			25,000,000
06/20/1997	ROK	3,000,000						3,000,000
07/07/1997	Japan	3,200,000						3,200,000
08/04/1997	Norway						250,000 <sup>(9)</sup>	250,000
09/03/1997	Singapore					100,000		100,000
10/14/1997	New Zealand				321,935			321,935
10/15/1997	EAEC					11,195,000		11,195,000
10/22/1997	Finland					75,119	18,780 <sup>(12)</sup>	93,899
11/10/1997	EAEC					17,197,497		17,197,497
12/27/1997	Hungary					10,000		10,000
<b>1997 Total</b>		<b>13,930,000</b>			<b>22,865,135</b>	<b>28,627,616</b>	<b>1,175,234</b>	<b>66,597,985</b>
01/09/1998	ROK		45,000,000 <sup>(13)</sup>					45,000,000
01/12/1998	Indonesia				325,000 <sup>(4)</sup>			325,000
02/24/1998	Japan	530,000						530,000
05/01/1998	United States	3,600,000			26,400,000			30,000,000
07/10/1998	ROK	3,500,000						3,500,000
07/17/1998	New Zealand				258,800			258,800
07/22/1998	Czech Republic					127,816		127,816
08/04/1998	United States				5,000,000			5,000,000
08/04/1998	Singapore					100,000		100,000
08/11/1998	Australia				1,207,800			1,207,800
08/27/1998	Finland					91,193		91,193
09/29/1998	United States				10,000,000			10,000,000
10/16/1998	Japan	3,067,133						3,067,133
10/27/1998	EAEC	900,000				16,740,000		17,640,000
11/06/1998	ROK	97,133						97,133
11/16/1998	United States				5,000,000			5,000,000
1998	France						503,778 <sup>(14)</sup>	503,778
<b>1998 Total</b>		<b>11,694,266</b>	<b>45,000,000</b>		<b>48,191,600</b>	<b>17,059,009</b>	<b>503,778</b>	<b>122,448,653</b>
01/11/1999	Italy					1,250,000		1,250,000
01/25/1999	Singapore					400,000		400,000
02/05/1999	United States				12,000,000			12,000,000
03/18/1999	Italy					571,429		571,429
03/22/1999	Finland					92,333		92,333
03/25/1999	Japan	432,867						432,867
03/30/1999	Canada						161,447 <sup>(7)</sup>	161,447
04/20/1999	United States	1,000,000			14,000,000			15,000,000
06/25/1999	United States	2,500,000			17,500,000			20,000,000
08/05/1999	ROK	1,700,000						1,700,000
08/17/1999	ROK	1,800,000						1,800,000
09/22/1999	New Zealand				261,150			261,150
09/24/1999	EAEC	1,227,000				14,343,000		15,570,000
10/07/1999	Mexico				99,985			99,985
10/08/1999	United States				18,100,000			18,100,000
10/20/1999	Australia				1,294,800			1,294,800
11/12/1999	Japan	3,067,133						3,067,133
1999	ROK			749,549 <sup>(15)</sup>				749,549
<b>1999 Total</b>		<b>11,727,000</b>		<b>749,549</b>	<b>63,255,935</b>	<b>16,656,762</b>	<b>161,447</b>	<b>92,550,693</b>
01/20/2000	Singapore					300,000		300,000
03/07/2000	Peru				100,000			100,000
03/20/2000	Japan	432,867						432,867
03/21/2000	Canada				665,336			665,336

DATE	COUNTRY	ADMINISTRATION	LWR	INTEREST*	HFO	UNRESTRICTED	OTHER	TOTAL
04/05/2000	United States				15,000,000			15,000,000
04/07/2000	Japan			864,085 <sup>(16)</sup>				864,085
04/20/2000	Australia				599,800			599,800
04/27/2000	Chile					20,000		20,000
05/24/2000	Finland					75,356		75,356
05/25/2000	ROK	3,000,000						3,000,000
06/16/2000	Japan	2,454,633						2,454,633
07/05/2000	EAEC	1,350,000				12,904,500		14,254,500
07/07/2000	ROK	850,000						850,000
07/10/2000	Oman					50,000		50,000
07/28/2000	Norway						249,844 <sup>(9)</sup>	249,844
08/10/2000	United States				20,000,000			20,000,000
09/11/2000	New Zealand				209,500			209,500
09/18/2000	Japan			1,530,821 <sup>(16)</sup>				1,530,821
09/25/2000	Australia				1,075,200			1,075,200
10/16/2000	United States	3,850,000			25,557,000			29,407,000
11/16/2000	Japan	962,500						962,500
2000	ROK		288,782,714 <sup>(17)</sup>					288,782,714
2000	ROK			19,335,961 <sup>(15)</sup>				19,335,961
2000	Japan		149,842,648 <sup>(18)</sup>					149,842,648
<b>2000 Total</b>		<b>12,900,000</b>	<b>438,625,362</b>	<b>21,730,867</b>	<b>63,206,836</b>	<b>13,349,856</b>	<b>249,844</b>	<b>550,062,765</b>
02/14/2001	Singapore					300,000		300,000
02/23/2001	Japan			1,970,618 <sup>(16)</sup>				1,970,618
02/23/2001	United States				54,879,000			54,879,000
03/16/2001	Canada				624,883			624,883
07/23/2001	United States	4,561,000			15,439,000			20,000,000
08/7/2001	ROK	4,561,000						4,561,000
08/22/2001	Japan	3,850,000						3,850,000
09/5/2001	Finland					76,169		76,169
09/7/2001	New Zealand				218,100			218,100
09/19/2001	Japan			2,222,970 <sup>(16)</sup>				2,222,970
09/20/2001	Australia				1,000,000			1,000,000
11/28/2001	Japan	711,000						711,000
12/31/2001	Poland					10,000		10,000
2001	ROK		232,971,583 <sup>(17)</sup>					232,971,583
2001	ROK			33,354,343 <sup>(15)</sup>				33,354,343
2001	Japan		88,934,655 <sup>(18)</sup>					88,934,655
<b>2001 Total</b>		<b>13,683,000</b>	<b>321,906,238</b>	<b>37,547,931</b>	<b>72,160,983</b>	<b>386,169</b>		<b>445,613,884</b>
01/7/2002	EAEC	1,599,000				16,101,000		17,700,000
02/4/2002	Thailand					56,510		56,510
3/15/2002	Japan			2,304,378 <sup>(16)</sup>				2,297,600
3/27/2002	Japan	1,330,000						1,330,000
3/28/2002	Canada				490,497			490,497
4/2/2002	Qatar					100,000		100,000
4/29/2002	United States	4,330,000			86,170,000			90,500,000
6/5/2002	Australia				1,133,600			1,133,600
6/25/2002	EAEC	1,520,000				17,620,000		19,140,000
9/6/2002	ROK	4,330,000						4,330,000
9/23/2002	New Zealand				236,500			236,500
12/12/2002	Japan	3,000,000						3,000,000
2002	ROK		241,230,851 <sup>(17)</sup>	43,154,522 <sup>(15)</sup>				284,385,373
2002	Japan		75,393,929 <sup>(18)</sup>					75,393,929
<b>2002 Total</b>		<b>16,109,000</b>	<b>316,624,780</b>	<b>45,458,900</b>	<b>88,030,597</b>	<b>33,877,510</b>	<b>0</b>	<b>500,100,787</b>
<b>Grand Total</b>		<b>91,508,266</b>	<b>1,142,066,689</b>	<b>105,662,441</b>	<b>394,538,950</b>	<b>114,119,270</b>	<b>29,110,678</b>	<b>1,877,006,293</b>

\*Interest paid or foregone on LWR loans. \*\*European Atomic Energy Community.

## B. Total Financial Support by Country March 1995 through December 2002

Argentina	200,000	Greece	25,000	Peru	100,000
Australia	14,444,400	Hungary	10,000	Philippines	150,000
Brunei	423,690	Indonesia	974,907	Poland	10,000
Canada	4,683,664	Italy	1,821,429	Qatar	100,000
Chile	20,000	Japan	385,542,546 <sup>(21)</sup>	ROK	938,257,850 <sup>(22)</sup>
Czech Republic	127,816	Malaysia	300,000	Singapore	1,600,000
EAEC	118,958,997	Mexico	99,985	Switzerland	118,148
Finland	645,593	Netherlands	790,192	Thailand	356,510
France	503,778	New Zealand	2,539,460	United Kingdom	1,000,000
Germany	1,011,485	Norway	749,844	United States	401,386,000
		Oman	100,000		

### Notes to Appendix 1:

- (1) For pre-project services and site survey.
- (2) For “non-proliferation aspects of KEDO activity.” Approximately \$400,000 of this amount was spent in 1998 on a study by a UK contractor on management of spent fuel from the DPRK’s experimental reactor. The remaining \$600,000 was spent on non-proliferation aspects of KEDO activity in 1998, as follows: \$260,000 on heavy fuel oil and \$340,000 on a study by a Canadian contractor on management of spent fuel from the DPRK’s experimental reactor.
- (3) Amount listed under “HFO” was provided for 1995 HFO Year deliveries before KEDO was established on March 9, 1995.
- (4) Value of in-kind provision of heavy fuel oil.
- (5) For payment for services by Finnish contractors. Consulting services provided in September 1996 at cost of \$20,000. By subsequent agreement with the Government of Finland, remainder of \$2,810 was made available in support of heavy fuel oil purchases.
- (6) “Collateral Fund” to be used as needed to support the financing of KEDO expenses in case of a liquidity shortfall.
- (7) For the work of the consortium, to include the supply of interim conventional energy, activities related to the provision of new nuclear reactors, and management of spent fuel from existing gas-graphite reactors.
- (8) First installment of \$6,262,000 provided by the EAEC in 1996.
- (9) For heavy fuel oil or other non-nuclear energy purposes.
- (10) \$500,000 of this amount has been set aside to support “means existing within the European Union in the scientific, industrial and technological field.”
- (11) Advance payment of 1998.
- (12) For payment of expenses associated with the participation of a Finnish expert in nuclear safety-related activities of KEDO.
- (13) The ROK provided \$45 million in January 1998 in support of KEDO activities, in the form of a KEXIM loan to meet the cost of work performed under the Preliminary Works Contract.
- (14) France earmarked 10 million Francs for support of KEDO in December 1995, the use of which was tied to the provision of services by French contractors. Three million Francs of that amount (the equivalent of which in U.S. dollars is shown here) was used for a study carried out in 1998 related to the management of spent fuel from the DPRK’s experimental reactor. As noted in (2) above, KEDO also received a total of \$740,000 of available amount in the “Other” category for similar studies in 1998 by one UK and one Canadian contractor.
- (15) Amount the ROK paid in the form of interest for the ROK government bond issued to raise funds for the South-North Korea Cooperation Fund, the source of the KEXIM loan. The numbers were provided by the ROK.
- (16) Provided by Japan for KEDO’s payment of interest to JBIC, in accordance with Article III of the Agreement between KEDO and the Government of Japan on the Provision of Financing for the Implementation of the Light-Water Reactor Project.
- (17) Provided by the ROK in the form of a KEXIM loan to meet the cost of work performed under the Turnkey Contract. \$45,000,000 out of the Year 2000 installments was used to repay the 1/9/98 KEXIM loan referenced in footnote (13).
- (18) (Provided by Japan in the form of a JBIC loan to meet the cost of work performed under the Turnkey Contract.
- (19) The Grand Total reflects the fact that the Year 2000 KEXIM loan included the \$45,000,000 used to repay the 1/9/98 KEXIM loan, as explained in footnote (17), instead of simply adding the \$45,000,000 of 1/9/98 and the Year 2000 KEXIM loan together with the other LWR numbers.
- (20) Along with all financial support to the HFO Account, financial support to the Unrestricted and Other Accounts not otherwise earmarked and approved by the Executive Board for such use was expended in support of the financing of heavy fuel oil deliveries. A portion of total heavy fuel oil obligations incurred since March 1995 of approximately \$409.7 million has been met with the \$393.8 million in above-mentioned financial support plus interest received to date on those and other categories.
- (21) This amount includes \$19,000,000 provided by Japan in 1996 as a “Collateral Fund,” the LWR-related support to meet the cost of work performed under the TKC, and the interest-related support for KEDO’s payment of interest to JBIC. Please see Footnotes (6), (16), and (18) above.
- (22) This amount includes LWR-related support to meet the cost of work performed under the TKC and interest-related support paid, according to the ROK, in the form of interest for the ROK government bond issued to raise funding for the South-North Korea Cooperation Fund, the source of the KEXIM loan. Please see Footnotes (15) and (17) above. The consideration in footnote (19) is made in this table, too. ■

KEXIM: Export-Import Bank of Korea  
JBIC: Japan Bank for International Cooperation

## The Korean Peninsula Energy Development Organization

### Financial Statements and Supplementary Schedule

December 31, 2002



**PricewaterhouseCoopers LLP**  
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#### Report of Independent Accountants

To The Executive Board of  
The Korean Peninsula Energy Development Organization:

In our opinion, the accompanying balance sheet and the related statements of activities and cash flows present fairly, in all material respects, the financial position of The Korean Peninsula Energy Development Organization (the "Organization" or "KEDO") at December 31, 2002, and the changes in its net assets and its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Organization's management; our responsibility is to express an opinion on these financial statements based on our audit. The prior year summarized comparative information has been derived from the Organization's 2001 financial statements, and in our report dated March 25, 2002, we expressed an unqualified opinion on those financial statements. We conducted our audit of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

As discussed in Note 1, the Government of Democratic People's Republic of Korea (the "DPRK") has agreed to repay the cost of the two light-water reactors to the Organization over a 20-year term after the completion of each of the light-water reactors. The repayment amount will be determined jointly by the Government of the DPRK and the Organization and therefore is uncertain.

Also, as discussed in Note 1, the terms of the agreement on the establishment of KEDO may be amended, terminated or suspended by written agreement of all the Executive Board members, or, if such agreement is not achievable, by written agreement of a majority of the Executive Board members of the Organization. At a meeting held in November 2002 to discuss the implications of the Government of the DPRK's acknowledgement that it was pursuing a program to produce highly-enriched uranium for nuclear weapons, the Executive Board agreed to suspend the delivery of interim energy alternatives to the DPRK and to continue to consult on next steps with regard to future activities of the Organization. If those next steps include suspension or termination of the light-water reactor project, the Organization, the banks and the governments involved would hold consultations with a view to finding an appropriate action to be taken, and the banks, under certain circumstances, would have the right to declare the loans to be forthwith due and payable in accordance with the terms and conditions of the loan facility agreements. The Organization would not have the funds to repay these loans without further support from sponsoring governments.



Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplementary information presented on Schedule 1 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

*PricewaterhouseCoopers LLP*

March 12, 2003

# Balance Sheet

## The Korean Peninsula Energy Development Organization

As of December 31, 2002

(with comparative financial information as of December 31, 2001)

### Assets

	2002	2001
Cash and cash equivalents	\$27,391,948	\$34,825,482
Cash restricted for collateral (note 4)	19,000,000	19,000,000
Contributions receivable, net (note 2)	2,849,487	17,710,000
Furniture, equipment, and leasehold improvements, net (note 3)	1,476,300	1,001,254
Other assets	381,238	307,065
Light-Water Reactor Project (note 8)	1,145,739,547	793,714,590
<b>Total assets</b>	<b><u>\$1,196,838,520</u></b>	<b><u>\$866,558,391</u></b>

### Liabilities and Net Assets

#### Liabilities:

Accounts payable and accrued expenses	\$3,926,858	\$3,988,479
Suppliers' credit for Heavy Fuel Oil (note 1)	—	18,900,409
Notes payable (note 4)	—	15,000,000
Due to contractor (note 10)	68,422,587	50,198,228
Loans payable (note 9)	1,083,759,408	683,521,942

#### Total liabilities

1,156,108,853      771,609,058

#### Net assets:

Unrestricted	11,096,261	47,863,769
Temporarily restricted (note 6)	29,633,406	47,085,564

#### Total net assets

40,729,667      94,949,333

#### Total liabilities and net assets

**\$1,196,838,520**      **\$866,558,391**

# Statement of Activities

## The Korean Peninsula Energy Development Organization

Year Ended December 31, 2002

(with comparative financial information for the year ended December 31, 2001)

	UNRESTRICTED	TEMPORARILY RESTRICTED	TOTAL	
			2002	2001
<b>Revenues:</b>				
Contributions	\$17,776,510	\$102,540,597	\$120,317,107	\$89,582,052
Contributed and imputed interest (note 9)	—	48,308,388	48,308,388	37,723,125
Interest income	1,043,786	—	1,043,786	3,335,531
Net assets released from restrictions	168,301,143	(168,301,143)	—	—
<b>Total revenues</b>	<b>187,121,439</b>	<b>17,452,158</b>	<b>169,669,281</b>	<b>130,640,708</b>
<b>Expenses:</b>				
Program Services:				
Heavy fuel oil	70,539,664	—	70,539,664	92,021,086
Light-Water Reactor Project interest expense (notes 9 and 10)	48,432,591	—	48,432,591	37,386,393
Project survey and other than heavy fuel oil	—	—	—	7,000
<b>Total Program Services</b>	<b>118,972,255</b>	<b>—</b>	<b>118,972,255</b>	<b>129,414,479</b>
Supporting Services:				
Administration	14,944,130	—	14,944,130	14,562,521
<b>Total expenses</b>	<b>133,916,385</b>	<b>—</b>	<b>133,916,385</b>	<b>143,977,000</b>
Foreign exchange (loss) gain	(89,972,562)	—	(89,972,562)	39,012,058
Change in net assets	(36,767,508)	(17,452,158)	(54,219,666)	25,675,766
<b>Net assets at beginning of year</b>	<b>47,863,769</b>	<b>47,085,564</b>	<b>94,949,333</b>	<b>69,273,567</b>
<b>Net assets at end of year</b>	<b>\$11,096,261</b>	<b>\$29,633,406</b>	<b>\$40,729,667</b>	<b>\$94,949,333</b>

SEE ACCOMPANYING NOTES TO FINANCIAL STATEMENTS.

# Statement of Cash Flows

## The Korean Peninsula Energy Development Organization

Year Ended December 31, 2002

(with comparative financial information for the year ended December 31, 2001)

	2002	2001
<b>Cash flows from operating activities:</b>		
Increase in net assets	\$(54,219,666)	\$25,675,766
Adjustments to reconcile increase in net assets to net cash provided by (used in) operating activities:		
Depreciation	328,765	272,603
Foreign exchange loss (gain)	89,972,562	(39,012,058)
Changes in assets and liabilities:		
Decrease (increase) in contributions receivable	14,860,513	(3,359,250)
(Increase) decrease in other assets	(74,173)	145,799
(Decrease) increase in accounts payable and accrued expenses	(61,621)	1,011,587
(Decrease) increase in suppliers' credits payable for heavy fuel oil	(18,900,409)	18,900,409
Increase (decrease) in due to contractor	18,224,359	(1,080,979)
<b>Net cash provided by operating activities</b>	<b>50,130,330</b>	<b>2,553,877</b>
<b>Cash flows from investing activities:</b>		
Light-Water Reactor Project expenditures	(352,328,769)	(331,489,937)
Other expenditures	(803,812)	(84,847)
<b>Net cash used in investing activities</b>	<b>(352,828,769)</b>	<b>(331,574,784)</b>
<b>Cash flows from financing activities:</b>		
Proceeds from notes payable	61,000,000	102,000,000
Repayments of notes payable	(76,000,000)	(102,500,000)
Proceeds from loans payable	310,264,905	321,349,774
<b>Net cash provided by financing activities</b>	<b>295,264,905</b>	<b>320,849,774</b>
<b>Net decrease in cash and cash equivalents</b>	<b>(7,433,534)</b>	<b>(8,171,133)</b>
<b>Cash and cash equivalents at beginning of year</b>	<b>34,825,482</b>	<b>42,966,615</b>
<b>Cash and cash equivalents at end of year</b>	<b>\$27,391,948</b>	<b>\$34,825,482</b>
<b>Supplemental cash flow information:</b>		
Interest paid during the year	\$4,481,257	\$3,903,397
In-kind contribution (noncash contributed interest)	\$43,154,522	\$33,529,537

## Notes to the Financial Statements

Year ended December 31, 2002

(with summarized financial information for the year ended December 31, 2001)

### 1. Description of Organization and Summary of Significant Accounting Policies

#### Description of Organization

The Korean Peninsula Energy Development Organization (the "Organization" or "KEDO") was established on March 9, 1995 to advance the implementation of the "Agreed Framework" signed by the United States of America and the Democratic Peoples Republic of Korea ("DPRK") in 1994. The founding members of the Organization are Japan, the Republic of Korea and the United States of America. Those three founding members were joined on the Organization's Executive Board in 1997 by the European Atomic Energy Community.

In accordance with the agreement on the establishment of KEDO (the "KEDO Charter"), the purpose of the Organization is to (i) provide for the financing and supply of a light-water reactor project in the DPRK consisting of two reactors of the Korean standard nuclear plant model with a capacity of approximately 1,000 megawatts each; (ii) provide for the supply of interim energy alternatives in lieu of the energy from the DPRK's graphite-moderated reactors pending construction of the first light-water reactor unit in the form of 500,000 metric tons of heavy fuel oil each year; and (iii) provide for the implementation of any other measures deemed necessary to accomplish the foregoing or otherwise to carry out the objectives of the Agreed Framework.

The terms of the KEDO Charter may be amended, terminated or suspended by written agreement of all the Executive Board members, or, if such agreement is not achievable, by written agreement of a majority of the Executive Board of the Organization. At a meeting held in November 2002 to discuss the implications of North Korea's acknowledgement that it was pursuing a program to produce highly-enriched uranium for nuclear weapons, the Executive Board agreed to suspend the delivery of interim energy alternatives to the DPRK and to continue to consult on next steps with regard to future activities of KEDO.

If those next steps include suspension or termination of the light-water reactor project, the Organization, the banks and the governments involved would hold consultations with a view to finding an appropriate action to be taken, and the banks, under certain circumstances, would have the right to declare the loans to be forthwith due and payable in accordance with the terms and conditions of the loan facility agreements (see Note 9).

The Organization is dependent on contributions from governments to carry out its objectives and cover its operating costs. In 2002, eight countries and the European Atomic Energy Community provided all of the Organization's contributions. In 2001, nine countries and the European Atomic Energy Community provided all of the Organization's contributions. The Organization has been designated by the President of the United States of America as a public international orga-

nization entitled to enjoy privileges, exemptions and immunities as an international organization under the International Organizations Immunities Act, 22 U.S.C. §§288-288f. As such, the Organization is also classified as an international organization under Section 7701(a)(18) of the Internal Revenue Code (the "Code"), and is entitled to an exemption from Federal income taxes under Section 892 of the Code.

#### Summary of Significant Accounting Policies

##### a. Basis of Presentation

The accompanying financial statements have been prepared on the accrual basis in accordance with accounting principles generally accepted in the United States of America. As an international organization exempt from Federal income taxes, the Organization follows accounting standards applicable to not-for-profit organizations. Under these standards, net assets and revenues, expenses, gains and losses are classified based on the existence or absence of donor-imposed restrictions. Accordingly, the net assets of the Organization and changes therein are classified and reported as follows:

**Unrestricted net assets:** Net assets that are not subject to donor-imposed stipulations.

**Temporarily restricted net assets:** Net assets subject to donor-imposed stipulations that will be met either by actions of the Organization and/or the passage of time.

**Permanently restricted net assets:** Net assets subject to donor-imposed stipulations that they be maintained permanently. The organization does not have any permanently restricted net assets. Revenues are reported as increases in unrestricted net assets unless use of the related asset is limited by donor-imposed restrictions. Expenses are reported as decreases in unrestricted net assets. Gains and losses on investments and other assets or liabilities are reported as increases or decreases in unrestricted net assets unless their use is restricted by explicit donor stipulation or by law. Expirations of temporary restrictions on net assets (i.e., the donor-stipulated purpose has been fulfilled and/or the stipulated time period has elapsed) are reported as net assets released from restrictions.

##### b. Contributions

Contributions, which include unconditional promises to give, are recognized as revenues in the period received.

##### c. Cash Equivalents

Cash equivalents represent highly liquid debt instruments with original maturities of three months or less.

##### d. Depreciation

Depreciation of furniture, equipment, and leasehold improvements is provided on a straight-line basis. Furniture, equipment, and automobiles are depreciated over their estimated useful lives, ranging from five to ten years. Leasehold improvements are depreciated over their useful lives or life of the lease, whichever is shorter.

#### e. Light-Water Reactor Project

Expenditures for the Light-Water Reactor ("LWR") Project have been capitalized at cost. According to the Supply Agreement between the Organization and the Government of the DPRK, the Government of the DPRK has agreed to repay for the two light-water reactors from the Organization on a long-term interest-free basis over a twenty-year term beginning three years after the completion of the LWR Project. The amount to be repaid will be jointly determined by the Organization and the Government of the DPRK based on the examination by each side of the technical description of the LWR project, the then fair and reasonable market value of the LWR project, and the contract price paid by the Organization to its contractors and subcontractors for costs outlined in the Supply Agreement. Negotiations relating to the repayment terms which will occur in the future may or may not result in a repayment amount that differs from the costs capitalized. This difference, if any, cannot be reasonably estimated at this time and, accordingly, has not been provided for in the accompanying financial statements.

In an October 1999 Memorandum of Understanding ("Memorandum") the Government of the DPRK agreed to indemnify the Organization from any claims arising out of Environmental Harm, as defined in the Memorandum.

#### f. Accounting Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and judgments that affect the reported amounts of assets and liabilities and disclosures of contingencies at the date of the financial statements and revenues and expenses recognized during the reporting period. Significant estimates include the carrying value of the LWR project, imputed interest and the carrying value of contributions receivable. Actual results could differ from those estimates.

#### g. Fair Value of Financial Instruments

The carrying amount of financial instruments other than loans payable approximates fair value. The fair value of loans payable is not readily determinable due to the uncertainty of the repayment period.

#### h. Foreign Currency Translation

The Organization has transactions involving various currency denominations, including those relating to its contributions and loans payable. The Organization translates its foreign currency denominated assets and liabilities into U.S. dollars at the rate in effect at the balance sheet date. At December 31, 2002 and 2001, such foreign currency rates for U.S. dollars were as follows:

AMOUNT DUE IN	2002	2001
Euro	—	1.13443
South Korea (Won)	1,186.30	1,313.50
Japan (Yen)	118.75	131.60

The translation of these amounts into U.S. dollars should not be construed as representing that foreign currencies have been, could have been or could be converted into U.S. dollars at these rates. The adjustment resulting from this translation is recorded as a foreign exchange gain or loss in the statement of activities.

#### i. Comparative Information

The accompanying statement of activities is presented with comparative information for the year ended December 31, 2001 in total but not by net asset class. Such information does not include sufficient detail to constitute a presentation in conformity with accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with the Organization's financial statements for the year ended December 31, 2001.

#### j. Suppliers' Credit for Heavy Fuel Oil

This amount represents payables to a vendor for Heavy Fuel Oil purchases.

#### 2. Contributions Receivable

Contributions receivable consist of the following at December 31, 2002 and 2001:

	2002	2001
AMOUNTS DUE IN:		
LESS THAN ONE YEAR	\$2,849,487	\$17,710,000
	<u>2,849,487</u>	<u>\$17,710,000</u>
Less:		
Allowance for uncollectible receivables	—	—
	<u>\$2,849,487</u>	<u>\$17,710,000</u>

#### 3. Furniture, Equipment, and Leasehold Improvements

Furniture, equipment, and leasehold improvements consist of the following at December 31, 2002 and 2001:

	2002	2001
Furniture	\$382,490	\$382,491
Equipment	1,749,604	1,926,540
Automobiles	54,200	54,200
Leasehold improvements	1,008,083	250,700
	<u>\$3,194,377</u>	<u>\$2,613,931</u>
Less accumulated depreciation and amortization	(1,718,077)	(1,612,677)
	<u>\$1,476,300</u>	<u>\$1,001,254</u>

#### 4. Notes Payable

At December 31, 2001 the Organization's notes payable outstanding were as follows:

DUE DATE	INTEREST RATE	AMOUNT
2001:		
January 7, 2002	2.65%	\$6,000,000
January 14, 2002	2.41%	1,000,000
January 24, 2002	2.45%	4,000,000
January 24, 2002	2.45%	4,000,000
		<u>15,000,000</u>

There were no notes payable at December 31, 2002.

Interest expense on notes payable amounted to \$189,220 and \$472,145 in 2002 and 2001, respectively. These amounts were incurred in connection with the Heavy Fuel Oil activities of the organization, as such, this interest expense is included in Heavy Fuel Oil in the statement of activities.

The above notes payable were collateralized by certificates of deposit which are included in cash restricted for collateral and are valued at \$19,000,000 at December 31, 2002 and 2001.

#### 5. Pension Plan

The Organization has a money purchase defined contribution pension plan covering substantially all employees. Employees become eligible to participate after three months of service.

The organization contributes, to a trust, an amount equal to 16.667% of an employee's annual compensation. Employees vest immediately in the Organization's contribution. The plan is entirely funded by the Organization. Pension expense for the years ended December 31, 2002 and 2001 amounted to \$840,488 and \$784,868, respectively.

#### 6. Temporarily Restricted Net Assets

Temporarily restricted net assets were released from restrictions for the following purposes during 2002 and 2001.

	2002	2001
Administration	\$13,868,698	\$14,562,521
Heavy fuel oil	88,030,597	72,160,983
Project survey and other than heavy fuel oil	—	7,000
Imputed interest	43,154,522	33,529,537
Loan interest	5,537,326	3,849,989
Future period	17,710,000	635,524
	<b>\$168,301,143</b>	<b>\$124,745,554</b>

Temporarily restricted net assets at December 31, 2002 and 2001 were available for the following purposes or for future periods:

	2002	2001
Collateral	\$19,000,000	\$19,000,000
Administration	9,000,617	8,359,369
Site survey	236,494	236,494
Project survey and other than heavy fuel oil	1,162,676	1,162,676
Loan interest	233,565	617,024
Future period	—	17,710,000
	<b>\$29,633,406</b>	<b>\$47,085,563</b>

#### 7. Lease Commitments

The Organization rents office space in New York City under a lease agreement which expires on September 30, 2005. Rent expense for the years ended December 31, 2002 and 2001 was \$766,751 and \$745,296, respectively.

The future minimum lease payments at December 31, 2002 are as follows follows:

YEAR ENDING DECEMBER 31,	AMOUNT
2003	\$730,726
2004	746,451
2005	543,152
	<b>\$2,020,329</b>

#### 8. Light-Water Reactor Project

Under a Preliminary Works Contract ("PWC") signed in 1997 between the Organization and Korea Electric Power Corporation ("KEPCO"), the prime contractor, the Organization began capitalizing costs related to the construction of the LWR Project which included site activities for grading and infrastructure development under the PWC. On December 15, 1999, the Organization and KEPCO signed the Turnkey Contract ("TKC"), which became effective on February 3, 2000 and supercedes the PWC and will govern the entire scope of the LWR project under which the light-water reactor plants will be designed, constructed, and commissioned under the terms of the Agreed Framework discussed in Note 1. Capitalized costs will not be depreciated due to the fact that the Government of the DPRK, under the Supply Agreement, will repay the LWR project (see Note 1(e)).

#### 9. Loans Payable

To finance the preliminary construction of the LWR Project, the Organization entered into an interest-free loan facility agreement in 1998 ("Loan Facility A") with a bank to borrow up to \$45,000,000. The amount outstanding at December 31, 1999 of \$44,736,393 was paid in full on February 24, 2000 through a disbursement from Loan Facility B.

On December 15, 1999, the Organization entered into another interest-free loan facility agreement ("Loan Facility B") with the same bank to borrow up to 3.542 trillion Won (which is equivalent to \$2,986 million at December 31, 2002). The amount of Loan Facility B will be adjusted, as necessary, to ensure that the total equals 70% of the Actual Costs of the LWR Project, as defined in the agreement. The proceeds of Loan Facility B are to be used to finance the construction of the two LWR units. The amount of the loan will be allocated to both LWR units. The loan is due in 34 equal semiannual installments after a certain grace period following the completion of each LWR unit. The balance outstanding on Loan Facility B as of December 31, 2002 and December 31, 2001, amounted to \$781,508,040 and \$476,756,744, respectively. Imputed interest of \$43,154,522 (an interest rate of 6.97% as provided by the Government of Republic of Korea) and \$33,529,537 (an interest rate of 9.17% as provided by the Government of Republic of Korea) on the loan has been reflected as revenues-contributed and imputed interest and Light-Water Reactor Project interest expense in the statement of activities for the years ended December 31, 2002 and 2001, respectively.

On January 31, 2000, the Organization entered into a loan facility agreement ("Loan Facility C") with another bank to cover additional costs of the LWR Project. Loan Facility C allows the Organization to borrow up to ¥116.5 billion (which is equivalent to \$981 million at December 31, 2002). The interest rate is, as defined, the higher of the Japanese-yen long-term prime rate less 0.2% or the Fiscal Investment and Loans Program Rate. The interest rate in effect was 1.90% as of December 31, 2002. Interest is payable on each February 16 and August 16. Interest expense for this loan amounted to \$5,278,068 and \$3,849,989 for the years ended December 31, 2002 and 2001, respectively. In a separate agreement, the Government of Japan has agreed to extend a grant to the Organization to pay the interest, of which \$5,153,866 and \$4,193,587 was received during 2002 and 2001, respectively, and is included in revenues-contributed and imputed interest in the statement of activities. The amount of the loan will be allocated to both LWR units. The loan is due in 34 equal semiannual installments after a certain grace period, as defined, following the completion of each LWR unit. The balance outstanding amounted to \$302,251,368 and \$206,765,198 as of December 31, 2002 and December 31, 2001, respectively.

#### 10. Due to Contractor

Amounts due to contractor of \$68,422,587 as of December 31, 2002 and \$50,198,228 as of December 31, 2001 represent unpaid invoices for costs associated with the TKC between the Organization and KEPCO. The balances were paid in January and February in the following year, in accordance with the procedures set forth in the TKC. ■

## Schedule of Heavy Fuel Oil Expenses

### The Korean Peninsula Energy Development Organization

Year ended December 31, 2002

(with summarized financial information for the year ended December 31, 2001)

	<u>2002</u>	<u>2001</u>
Commodity, freight and demurrage	\$69,740,041	\$90,654,986
Interest	189,220	472,145
Technical services—flow meters	421,611	519,492
Freight forwarding service fees	(58,241)	75,196
Insurance	91,519	131,586
Depreciation	155,514	151,807
Other	-	15,874
<b>Total expenses</b>	<b><u>\$70,539,664</u></b>	<b><u>\$92,021,086</u></b>