Mr. Chairman, thank you very much for

the opportunity to speak here today. I am very pleased that this

committee has taken the lead in educating the American public on

such a critical issue.

You have asked me to address the energy component of a theoretical

resolution of the current nuclear crisis on the Korean Peninsula.

While I am not an energy expert per se, I did have the opportunity

to serve as the U.S. Representative to the Korean Peninsula

Energy Development Organization for about 21⁄2 years. So I am

going to use that as a springboard to move forward to answer your

question. But first, I thought I would review a little bit why energy

is so important in this particular situation and why I think it is

going to be critical in the resolution of anything that we are able

to achieve.

In 1985, the former Soviet Union was able to get the North Koreans

to agree to join the nuclear Non-Proliferation Treaty in exchange

for the concept that Moscow would sell to North Korea four

light water reactors [LWRs] for the provision of energy. That particular

reactor that went into the NPT was a 5 megawatt reactor

that Mr. Luse and I visited this past January. It is now back on

line. It originally came on line in 1986 and, as we later found out,

was taken off line for several months between 1989 and 1990 while

the North Koreans removed several hundred spent fuel rods and

ultimately extracted enough plutonium to create perhaps one or

two nuclear weapons.

That same reactor was ultimately covered in the 1994 Agreed

Framework which froze the nuclear facilities at Yongbyon. It was

shut down and the spent fuel rods removed and safely stored under

IAEA supervision. As part of the negotiated deal, the United States

pledged to organize under its leadership a consortium to finance

and to supply two light water reactors and provide interim fuel in

the form of heavy fuel oil until the first light water reactor came

on line. In practice, the South Koreans pledged to finance 70 percent

of that light water reactor operation while the Japanese

pledged a dollar amount of $1 billion. It did not quite add up to

100 percent, but it was close. For our part, for the United States’

part, we pledged to organize and to supply the heavy fuel oil that

was calculated by what was going to be the foregone amount of energy

that the North Koreans would lose by freezing their nuclear

facilities, both the 5 megawatt and what they calculated was under

construction at the time, a 50 megawatt reactor and also a 200

megawatt reactor. That amount was set at 500,000 metric tons of

fuel oil per year.

Following Assistant Secretary Kelly’s trip to Pyongyang in October

of 2002 to confront North Korea over their secret highly enriched

uranium program, I led an effort as the U.S. Representative

to KEDO, upon instructions, to suspend KEDO’s provision of heavy

fuel oil to North Korea until there was a resolution of the HEU

program. We later then suspended the construction on the two

light water reactor programs.

What happened in rapid succession after that was the North Koreans’

response to that November 2002 suspension of heavy fuel oil

was for the North Koreans to declare that the United States had

effectively killed the Agreed Framework and they then began to

toss out the IAEA inspectors, as you know, and began to restart

their 5 megawatt reactor in January 2002, unfreezing their facilities

at Yongbyon. Their initial rationale that they provided me was

they needed to provide energy as a replacement for the heavy fuel

oil that had been suspended.

In this latest round of six-party talks, North Korea is reported

to have demanded that the United States, at the point that the

freeze goes into effect, take part in energy aid of some 2 million

kilowatts, in addition from removing them from the list of state

sponsors of terrorism and lifting the economic sanctions as part of

its reward for freeze program.

This gap, I would point out, between the United States and others

may simply be termed as something that would be predictable

at this stage of negotiations and not something I would be extremely

concerned about. North Korea is attempting to devalue the

U.S. offer while they increase the demand that it is making for its

own settlement. But more importantly, it highlights the important

role that energy plays in any settlement, particularly from a North

Korean point of view.

What I also need to do at this point is to point out to you, before

we get any further into this discussion on energy, that there are

several private and quasi-official efforts proceeding in the area of

possible provision of energy to North Korea. One of these efforts involves

the United Nations Secretary General’s Special Envoy to

North Korea. I will leave it to him to explain how, if at all, his efforts

have been coordinated in the ongoing multilateral talks and

how it may or may not support a negotiated settlement.

What is clear, Mr. Chairman, is that North Korea has a severe

energy shortage that has affected all aspects of national and individual

life. Industrial capacity is down. Electricity for agricultural

use is insufficient. Basic necessities of life, such as heating and

electricity, are unreliable. This was the same situation that U.S.

negotiators used as leverage in 1994 that led to the Agreed Framework

and it is the same situation that can provide U.S. negotiators

a similar level of leverage today.

Energy that was supplied to North Korea, as a result of the

Agreed Framework, was both short- and long-term. It was controlled and reversible in the event North Korea reneged on its commitments.

As I mentioned earlier, we suspended further deliveries

of near-term energy assistance in the form of heavy fuel oil in November

2002 and later suspended the longer-term energy assistance

in the form of LWR projects in December this past year. It

is appropriate that future deliveries of energy that are part of a

diplomatic resolution of the current crisis likewise be phased and

tied to North Korean performance of its objectives and obligations.

That being said, the situation today requires full consideration be

given to all variables we face. For example, it would be easy from

an American point of view to declare the Agreed Framework dead,

ending any and all support of the LWR project at Kumho. I believe

that would be short-sighted. While personally I do not envision any

scenario in which the current LWR project is completed as originally

contemplated and the keys of an operational LWR nuclear facility

turned over to Pyongyang, I do think we must look further

down the road to a point in time when reunification of North and

South Korea is a reality. My assumption is that when the time

comes, a reunified peninsula would be ruled by a democratic government

allied to the United States. That reunified nation, let

alone the projected needs of the current Republic of Korea, will

have vastly greater energy requirements. It stands to reason that

some of that energy may well be supplied by nuclear facilities yet

to be built. In that regard, I can see value to preserving the current

LWR work at Kumho or even advancing it under a formula that

keeps control in the hands of the ROK or some other international

entity until reunification occurs.

Since I have mentioned KEDO and the LWR project, let me continue

on that theme, if I may. I must confess that when I worked

on the National Security Council for about 5 years, I functioned as

the deputy to Ambassador Chuck Kartman who first as the chief

negotiator and concurrently as the U.S. Representative to KEDO

urged me to be more fully involved with KEDO. I viewed that as

a tar pit and did my best to stay away from it to my regret, for

as you know, I succeeded him in that job as U.S. Representative

to KEDO.

What I learned very quickly, once in that job in May 2001 and

had reinforced over the next 21⁄2 years, is that KEDO has an extremely

strong international staff composed of experts from each of

the consortium’s countries, the United States and Japan, the Republic

of Korea, and the European Union. I worked closely with

each of the consortium board members, as well as its executive director,

Ambassador Kartman. I have concluded that KEDO as an

organization is well placed to transition with minimal effort to an

organization that could contribute to the procurement and distribution

of non-nuclear forms of energy assistance to North Korea as

a part of a diplomatic resolution to the current nuclear crisis.

KEDO has years of experience in purchasing HFO on the world

market and having it delivered to North Korea. It has negotiated

tough protocols with Pyongyang requiring internationally acceptable

behavior and the development of responsible internal regulations

governing conduct and the rights at the LWR site at Kumho.

Equally important, the KEDO staff has established a professional,

non-political relationship in doing business with its North Korean

counterparts. Moreover, the North Koreans have had 9 years of experience

in dealing with KEDO. They have developed confidence in

the ability to work with its people, both from a policy and operational

standpoint. In addition, they have established a bureaucratic

counterpart to KEDO with enough standing in their own system

to get decisions carried out.

Before KEDO can be restructured as a tool of six-party diplomacy,

the EU needs to be brought into the current nuclear resolution

process, if only on an informal basis. As a voting member of

the board of directors, having EU approval for the future transition

of KEDO is essential. Any organization, in my opinion, that was

created to replicate KEDO’s expertise would be an unnecessary

waste of time and energy.

Having established that a key element in the provision of energy

to North Korea already exists, let me turn to potential energy packages

that could be considered.

When talking about energy assistance to North Korea, you have

to expand your initial thoughts that normally turn to coal or oil to

all aspects of the energy system that would be beneficial and therefore

of value to North Korea. First of all, North Korea’s infrastructure

is obsolete and inefficient. Basic upgrades from insulating

homes and businesses, to grid improvements, rehabilitation of old

plants and mines, to construction of new power plants would play

an important role in the equivalent delivery of energy assistance to

North Korea. I think that is important.

Natural gas has been mentioned earlier. Natural gas via pipeline

from Russia is another possibility, but one that could be part of a

longer-term package. However, that has been thrown around as

though it is an easy remedy. The cost involved might very well be

prohibitive in a shorter-term solution and therefore might necessarily

be part of a longer-term solution and very well might need

to be part of a government commercial mix or simply an entirely

commercial venture.

For negotiating reasons, a phased approach providing energy assistance

is best. Near-term provision of energy could easily come in

the form of heavy fuel oil, and that is what I believe is probably

the most wise thing to do. I do not think it is wise for the United

States to exclude itself from participation in the provision of HFO,

as was explained in the U.S. proposal today. Nor do I think North

Korea would find such a proposal acceptable. North Korea has the

capacity to handle and convert HFO to electricity if provided on a

scheduled basis.

One of the problems that we have had in the past with HFO is

the delivery. We have had problems finding the money, getting the

money on time, purchasing, having it delivered. Usually it came at

the end of the calendar year and it came in great quantities. It

overwhelmed the North Korean system. They were unable to plan

and use the HFO efficiently. So any effort to provide HFO ought

to be done on a scheduled and regular basis. It would be the most

efficient thing to do.

In addition to HFO, pilot projects designed to repair existing

mines and conventional power plants could be undertaken. One

novel idea is the first construction of a new conventional power

plant could occur at Kumho, which is the site of the current LWR

project. The infrastructure at Kumho already exists. I was there in

August 2002, and I can tell you it is a world-class facility. Moving

forward on another project using those existing facilities would

save time and effort rather than replicate them someplace else.

Longer-term projects that could be phased in as progress is made

in fulfilling non-proliferation obligations would include transmission

grid rehabilitation. As Assistant Secretary Kelly mentioned,

their grid system was created by the Japanese at the beginning

of the last century. It is dilapidated. They lose up to perhaps

25 percent of their energy just through the transmission over that

grid system. Increases in natural gas pipeline construction, modernization

of existing facilities, and construction of hydroelectric

power plants should be considered.

A long-term rehabilitation of the energy infrastructure would be

enormously important to South Korea. When reunification takes

place, the cost of bringing North Korea up to minimum South Korean

standards will be enormous. Any opportunity for Seoul to get

started in infrastructure rehabilitation in North Korea before reunification

would be a welcome head start.

Key to any longer-term energy assistance, as Assistant Secretary

Kelly has pointed out, would be a serious energy needs survey of

North Korea. I would say that that survey must be validated by

South Korea.

All the programs I have mentioned have costs that have to be

calibrated to the value that the six parties must agree upon in connection

with the elimination of North Korea’s nuclear program. I

do believe energy assistance will be an important component in the

eventual resolution of the nuclear crisis.

If I may, let me just reiterate and perhaps expand a bit on some

of the things that I just said in way of conclusion.

First, I think we already have an organization in existence that

could be used on short notice and that is KEDO. It requires only

that we find a way in which the European Union is brought in in

some way to the current six-party process, whether it is as an observer

or not. It has an added benefit that Senator Brownback

might find acceptable in that the European Union probably, even

though it is embryonic, has had far better success in discussing

with North Korea matters of human rights and humanitarian affairs.

They could bring that dimension into the current process as

well.

I do believe the United States should be involved. I cannot imagine

that we would want an organization that would have an independent

voice in how HFO is purchased and delivered that does

not include the United States. We would lose our influence and leverage.

I do not think, as I mentioned earlier, that North Korea

would accept anything less. It shows a less than full commitment

by the United States and it is one in which I think on principle we

ought to be involved in.

I do believe HFO is the initial way to go, and it ought to be

phased. And I also believe that it ought not to exceed the 500,000

metric tons that was originally part of the Agreed Framework. As

you do recall, the 500,000 metric tons was geared to the plutonium

portion of the nuclear program. The fact that the North Koreans

have cheated on that program, to suggest that we would do more

because there is an HEU component does smack as though we are

purchasing the HEU component rather than have the North Koreans

acknowledge their violation of the Agreed Framework. So I do

think the initial limitation should be no more than 500,000 metric

tons of fuel oil.

And I think we need to look beyond, as I mentioned, the short

term to infrastructure development. That certainly would be of

long-term assistance to South Korea. It would help in our development

of our relationship with South Korea.

The energy survey that I mentioned needs to be done. I think it

needs to be done concurrent at the initial phase, not later at some

date prior to the dismantlement or during the dismantlement, but

an initial phase in which the North Koreans would be able to ascertain

the intentions of the United States and understand that we

were serious about the longer-term benefits of energy provision

that would flow their way.

Finally, if possible, in the longer term, I would look to expand

the participation to include China and Russia. Right now, the Chinese

have their own bilateral assistance of energy to North Korea.

It would be better if a portion of that were included in the resolution

of this nuclear issue.

Mr. Chairman, thank you for the opportunity to speak today on an important

topic. I am also pleased to see this committee take the lead in educating the American

public on such a critical issue. I have been asked to address the energy component

of a theoretical resolution of the current nuclear crisis on the Korean Peninsula.

While I do not claim to be an energy expert, per se, I had the privilege of serving

as the United States Representative to the Korean Peninsula Energy Development

Organization (KEDO) from May 2001 until the end of August 2003. In that capacity

and from my previous experience of working the North Korean issue from the National

Security Council staff, I have had the opportunity to talk to a number of more

qualified people about what an energy component to an overall settlement might

look like.

I propose to provide you today with some thoughts on what might be possible and

to point out problems that will have to be addressed along the way. First, let me

briefly review how energy has come to play such a prominent role in past and future

dealings with North Korea.

In exchange for agreeing to join the Non-Proliferation Treaty (NPT) in December

1985 and put its 5 MW(e) reactor under international supervision, Moscow promised

to sell Pyongyang four Light Water Reactors (LWRs) for energy purposes. The existing

reactor went on line in 1986 and, as we learned later, was shut down for a few

months in 1989 and 1990 while the North Koreans removed hundreds of spent fuel

rods and extracted enough plutonium for 1 or 2 nuclear weapons. This 5 MW(e) reactor

was covered in the October 1994 Agreed Framework which was designed to

freeze and eventually eliminate North Korea’s fissile material production program.

The reactor was shut down and its spent fuel rods removed and safely stored under

IAEA supervision. As part of the negotiated deal, the United States pledged to organize

under its leadership a consortium to finance and supply 2 LWRs and provide

interim Heavy Fuel Oil (HFO) until the first LWR came on line. The practical

breakout of responsibilities resulted in South Korea and Japan agreeing to build

and principally fund the LWRs while the United States provided Heavy Fuel Oil.

The amount of HFO was related to the notional electrical output of the facilities

that North Korea was to freeze. That amount was set at 500,000 metric tons per

year.

Following Assistant Secretary Kelly’s trip to Pyongyang in October 2002 to confront

North Korea over their secret Highly Enriched Uranium (HEU) program, I led

an effort as the U.S. Representative to KEDO, upon instructions, in November 2002

to suspend further deliveries of HFO by KEDO pending resolution of the HEU issue.

In response to that suspension, Pyongyang declared that the United States had effectively

killed the Agreed Framework and then proceeded to unfreeze their nuclear

facilities at Yongbyon. Part of Pyongyang’s initial rationale for restarting its 5

MW(e) reactor in January 2003 was for the production of energy to replace the now

suspended HFO.

In the latest round of Six Party Talks, North Korea is reported to have demanded

that the United States, at the point that the freeze goes into effect, take part in

energy aid of two million kilowatts, in addition to removing them from the list of

states sponsoring terrorism and lifting economic sanctions as part of its ‘‘reward for

freeze’’ proposition.

This gap between what the United States and others may be prepared to provide

as part of an initial step toward complete resolution of the current nuclear crisis

and what the North Koreans are demanding can be described as routine and predictable

at this stage of diplomacy. North Korea is attempting to devalue the U.S.

proposal while increasing the price it is demanding for settlement. But more importantly,

it highlights the important role energy will play in any settlement.

I must point out now before we get much further into the discussion of energy

that there are several private and quasi-official efforts proceeding in the area of possible

provision of energy to North Korea. One of these efforts involves the United

Nations Secretary General’s special envoy to North Korea. I will leave to him or others

to explain how, if at all, his efforts have been coordinated with the ongoing multilateral

talks and how it may or may not support a negotiated settlement.

What is clear is that North Korea has an energy shortage that has affected all

aspects of national and individual life. Industrial capacity is down, electricity for agricultural

use is insufficient and basic necessities of life such as heating and electricity

are unreliable. This was the situation that gave U.S. negotiators certain leverage

in 1994 that led to the Agreed Framework and it is the same situation that

can provide U.S. negotiators a similar level of leverage today.

Energy that was supplied to North Korea as a result of the Agreed Framework

was both short- and longer-term. It was controlled and reversible, in the event

Pyongyang reneged on its commitments. As I mentioned earlier, we suspended further

deliveries of near-term energy assistance (HFO) in November 2002 and later

suspended work on the longer-term energy assistance (the LWR project). It is appropriate

that future deliveries of energy that are part of a diplomatic resolution of the

current crisis likewise be phased and tied to North Korean performance of its obligations.

That being said, the situation today requires full consideration be given to all the

variables we face. For example, it is easy from an American point of view to declare

the Agreed Framework dead, ending any and all support for the LWR project at

Kumho. That would be short-sighted. While I personally do not envision a scenario

in which the current LWR project is completed as originally contemplated and the

keys to an operational nuclear facility turned over to Pyongyang, I do think we must

look further down the road to a point in time when reunification of North and South

Korea is a reality. My assumption is that when that time comes, a reunified peninsula

will be ruled by a democratic government allied to the United States. That reunified

nation, let alone the projected needs of the current Republic of Korea, will

have vastly greater energy requirements. It stands to reason that some of that energy

might well be supplied by nuclear facilities yet to be built. In that regard, I

can see value to preserving the current LWR work at Kumho or even advancing it

under a formula that keeps control in the hands of the ROK or some other international

entity until reunification occurs.

Since I have mentioned KEDO and the LWR project, let me continue on that

theme. I must confess that when I worked on the National Security Council staff

for several years and functioned as Ambassador Charles Kartman’s deputy in negotiations

with the DPRK, he tried his best to get me involved in KEDO. To my regret,

I resisted his wise counsel, for in May 2001, I succeeded Ambassador Kartman

as the U.S. Representative to KEDO.

What I learned very quickly then and had reinforced over the next two and half

years is that KEDO has an exceedingly strong international staff composed of experts

from each of the consortium’s member countries: the United States, Japan, the

Republic of Korea and the European Union. I worked closely with each of the consortium’s

Board Members as well as its Executive Director, Ambassador Kartman.

I have concluded that KEDO, as an organization, is well placed to transition with

minimal effort to an organization that could contribute to the procurement and distribution

of non-nuclear forms of energy assistance to North Korea as part of a diplomatic

resolution to the nuclear crisis.

KEDO has years of experience in purchasing HFO on the world market and having

it delivered to North Korea. It has negotiated tough protocols with Pyongyang

requiring internationally acceptable behavior and the development of responsible internal

regulations governing conduct and rights at the LWR site at Kumho. Equally

important, the KEDO staff has established a professional, non-political relationship

in doing business with its North Korean counterparts. Moreover, the North Koreans

now have nine years of experience dealing with KEDO. They have developed confidence

in their ability to work with its people, from both a policy and operational

standpoint. In addition, they have established a bureaucratic counterpart to KEDO

with enough standing in their own system to get decisions carried out.

Before KEDO can be restructured as a tool of Six Party Diplomacy, the EU needs

to be brought into the nuclear resolution process, even if only on an informal basis.

As a voting member of the Board of Directors, having EU approval for the future

transition of KEDO is essential. Any organization that was created to replicate

KEDO’s expertise would be an unnecessary waste of time and energy, in my opinion.

Having established that a key element in the provision of energy to North Korea

already exists, let me turn to potential energy packages that could be considered.

When talking about energy assistance to North Korea, you have to expand your

initial thoughts of oil or coal to all aspects of the energy system that would be beneficial,

and therefore of value, to North Korea. First of all, North Korea’s infrastructure

is obsolete and inefficient. Basic upgrades from insulating homes and businesses,

to grid improvements, to rehabilitation of old plants and mines to new constructions

of power plants would play a role in the equivalent delivery of energy assistance

to North Korea. Natural gas via a pipeline from Russia is another possibility

but one that could be part of a longer-term package. However, the cost involved

may dictate that it be a mix of government-commercial if not an outright

commercial venture.

For negotiating reasons, a phased approach to proving energy assistance is best.

Near-term provision of energy could easily come in the form of Heavy Fuel Oil.

North Korea has the capacity to handle and convert HFO to electricity, if provided

on a scheduled basis. In the past, North Korea complained that U.S.-provided HFO

inevitably was unpredictable and arrived in quantities too large for them to handle

efficiently. In addition to HFO, pilot projects designed to repair existing mines and

conventional power plants could be undertaken. The first construction of a new conventional

power plant could occur at Kumho, the site of the current LWR project.

The infrastructure at Kumho already exists, thus shortening the time that otherwise

would be required to begin such a project.

Longer-term projects that could be phased in as progress is made in fulfilling nonproliferation

obligations would include transmission grid rehabilitation, natural gas

pipeline construction, the modernization of existing power plants, and construction

of hydroelectric power plants throughout the country. The longer-term rehabilitation

of the energy infrastructure is of enormous importance to South Korea. When reunification

takes place the cost to bring North Korea up to minimum South Korean

standards will be enormous. Any opportunity for Seoul to get started in infrastructure

rehabilitation in North Korea before reunification would be a welcome head

start. Key to any longer-term energy assistance would be a serious energy needs

survey of North Korea validated by South Korea.

All of the programs I have mentioned have costs that have to be calibrated to the

value that the Six Parties must agree upon in connection to the elimination of North

Korea’s nuclear weapons program. I do believe energy assistance will be an important

component in the eventual resolution of the nuclear crisis.

Mr. Chairman, I want to thank you for the opportunity to appear this morning

and look forward to answering any questions you may have.

Mr. Chairman, I could not agree with

you more in terms of the preparation that needs to be there. It will

help in the negotiations. It will help in the long run.

What is striking about the six-party talks is that any kind of element

of concrete that has been put forward we have taken as a

very positive sign. The North Koreans likewise are looking for anything,

whether it is a negative concrete or a positive concrete likewise.

Two years ago when I had the job as Special Envoy, I went to

see Senator Nunn, thinking ahead of the process of how Nunn-

Lugar might apply to North Korea, to pick his brains on how it

could be applied, thinking along the lines that you are now. Unfortunately,

that was subsumed by the HEU revelation and we were

not able to move anywhere. But I think that was a mistake. We

should have done so early on.

I would also say as an example of standing up KEDO or any kind

of mechanism, whether it is Nunn-Lugar or something else, shows

the North Koreans there is a long-term prospect in place. It gives

them the incentive to continue to either cooperate or, in this case,

one of the things that is missing that was asked of Assistant Secretary

Kelly was the establishment of red lines. There have been

no discussions with the North Koreans about what would occur

should the North Koreans transfer fissile material or technology.

That ought to be established early. It should have been established

2 years ago and it is not too late to do so now to put in place the

concrete nature of the downward path that we might ultimately be

faced off with. I hope we are not, but it needs to be there.

The answer is probably not in terms of

the overall package in the long term of the total removal of the

North Korean—certainly——

Nuclear program.

Well, let me suggest the initial phase,

in terms of provisions of heavy fuel oil or interim energy, Japan

and South Korea are capable of doing. There are other ways in

which to skin this cat, when you take a look at the value of energy,

when you take a look at rehabilitation efforts, not simply the provision

of concrete coal or other things that would be of significant

value, the rehabilitation of mining, new construction. Others can do

that.

If I may, sir. There are two parts to

that, one of which is the absolute. Could the others come up together

with absolute packages of energy that might be able to entice

in absolute terms North Korea to do *x*, *y*, or *z*?

Theoretically perhaps. I would tell you

as a negotiator that it is a non-starter from a North Korean point

of view——

That the lack of U.S. commitment

and involvement in this process, allowing others to do

this, where the only commitment from a North Korean point of

view in the 1994 Agreed Framework in terms of the provision of

benefits was the U.S.——

It is a non-starter, but it is not solely

linked to energy. It is the commitment by the United States to be

part of the process and it is simply insufficient for a North Korean

to accept that the only U.S. commitment is the provision of a security

guarantee.