

# Megatons to Megawatts

## A New Energy Policy for North Korea



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# MEGATONS TO MEGAWATTS PROGRAM

BOMB-GRADE URANIUM  
FROM RUSSIAN  
WARHEADS



LOW ENRICHED  
URANIUM FOR  
**AMERICAN** NUCLEAR  
POWER PLANTS



*United States Enrichment Corporation  
Megatons to Megawatts*

<http://www.usec.com/megatonstomegawatts.htm>

# MEGATONS TO MEGAWATTS PROGRAM FOR NORTH KOREA

NUCLEAR WEAPONS  
PROGRAM



NUCLEAR ENERGY  
PROGRAM

*AN ALTERNATE  
APPROACH to the  
relationship between  
energy assistance and  
nuclear weapons  
program.*

# MEGATONS TO MEGAWATTS PROGRAM FOR NORTH KOREA

- 1 Separate North Korea's nuclear weapons ambitions from North Korea's energy needs.
- 2 Pursue a **multilateral effort** to assist North Korea with its energy needs through the conversion of its **nuclear weapons programs**.
- 3 Assure North Korea of energy assistance and a potential future of energy independence.

# MEGATONS TO MEGAWATTS PROGRAM FOR NORTH KOREA

AN ASIDE: I do not propose that this alone will compel North Korea to rid its nuclear weapons program.

Energy Deficiency in the DPRK is a real problem for the state and its development and attributes to the regime's sense of insecurity.

However, is this insecurity an effective bargaining tool in persuading Pyongyang to dismantle its nuclear weapons program?

# MEGATONS TO MEGAWATTS PROGRAM FOR NORTH KOREA

INSTEAD, assist in creating an energy-independent North Korea and thus provide a more hopeful future in Six Party Talk negotiations and eventual complete dismantlement.

- Security Assurance for North Korea (DRPK's top priority).
- Benefits to Economy: Future Integration and Human Aspect.
- The Slow "Opening," of North Korea's Nuclear Program.

# DETAILS OF THE PROGRAM

## CONVERSION OF STOCKPILE



## CONVERSION OF NUCLEAR FACILITIES



# CONVERSION OF STOCKPILE

Highly Enriched Uranium (HEU) → Low Enriched Uranium (LEU)



Highly enriched uranium  
(weapons grade)  
90% U-235



Low-enriched uranium  
(reactor grade)  
3-4% U-235

*Wikimedia Commons: "Enriched Uranium" Entry*

Still minimal in energy yield.



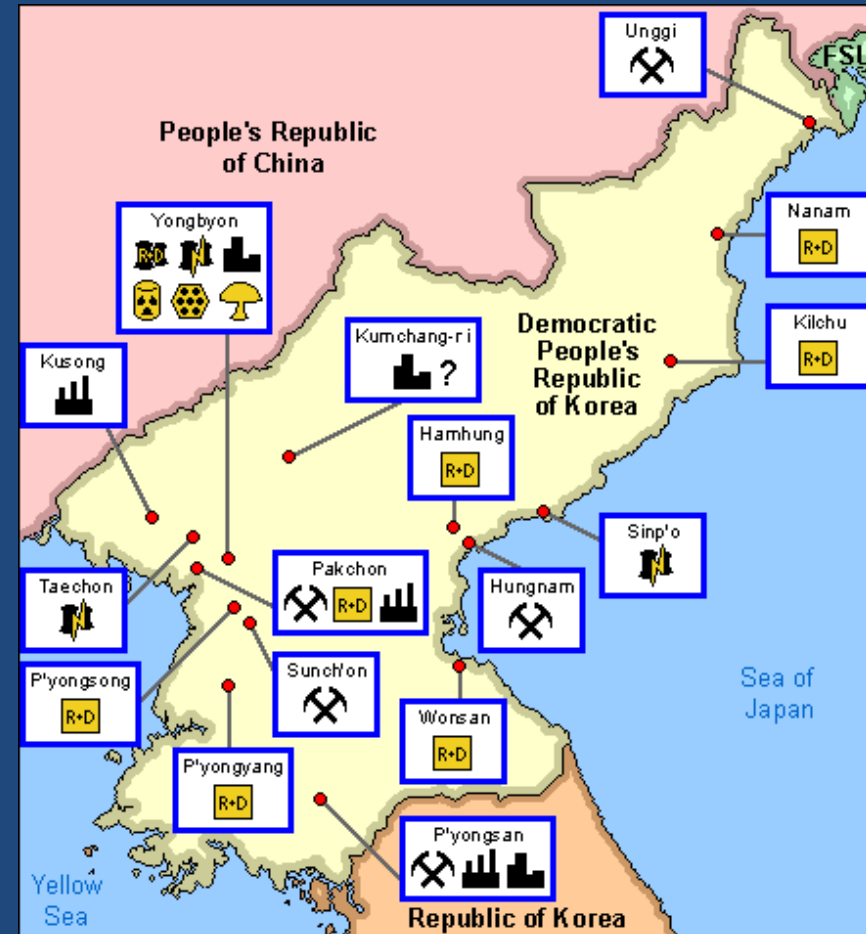
# CONVERSION OF NUCLEAR FACILITIES

YONGBYON, SINCHON, &  
TAECHON

Nuclear Power Plants

PAKCHON, PYONGSAN,  
PYONGYANG,  
YOUNGDOKTONG,  
SUNCHON...

Uranium mining facility,  
milling facility, research  
facility...etc



*Thomas Skold and Gaurav Kampani, Center for  
Nonproliferation Studies, Monterey Institute of International  
Studies, 2002.*

# CONVERSION OF NUCLEAR FACILITIES

Refitting Nuclear Facilities

Introduction of MOX Nuclear Fuel Process

# IN CONCLUSION...

Separate Nuclear Weapons Regime Question and Nuclear Civilian Energy Regime Question.

Ensure the DPRK with energy independence by assisting with a “Megatons to Megawatts” transition.

Encourage a DPRK that feels more secure and thus provide a pathway to better concessions in the Six Party Talks.