

# Japan's failed nuclear fuel cycle

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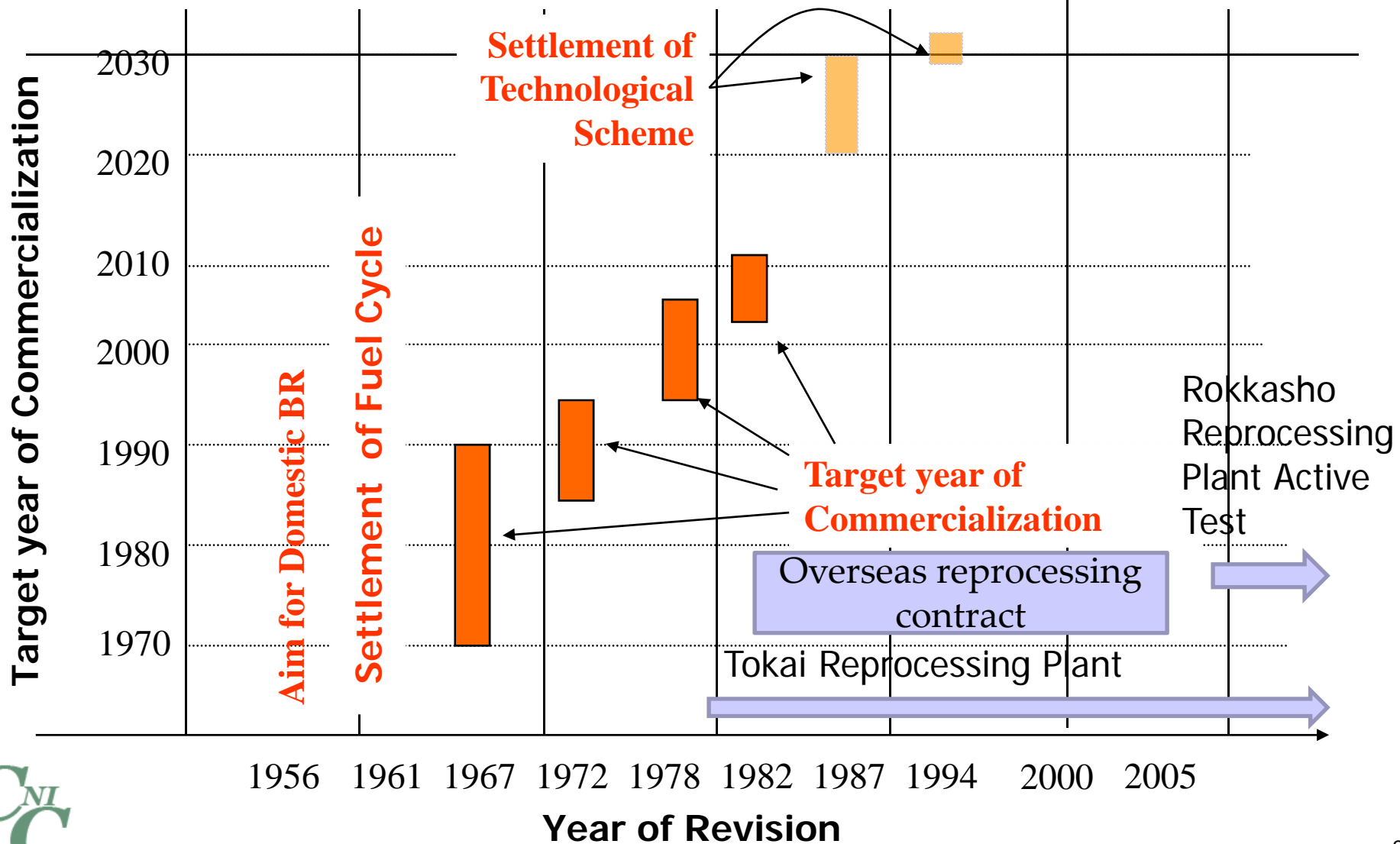
Citizens' Nuclear Information Center

<http://cnic.jp> e-mail:cnic@nifty.com



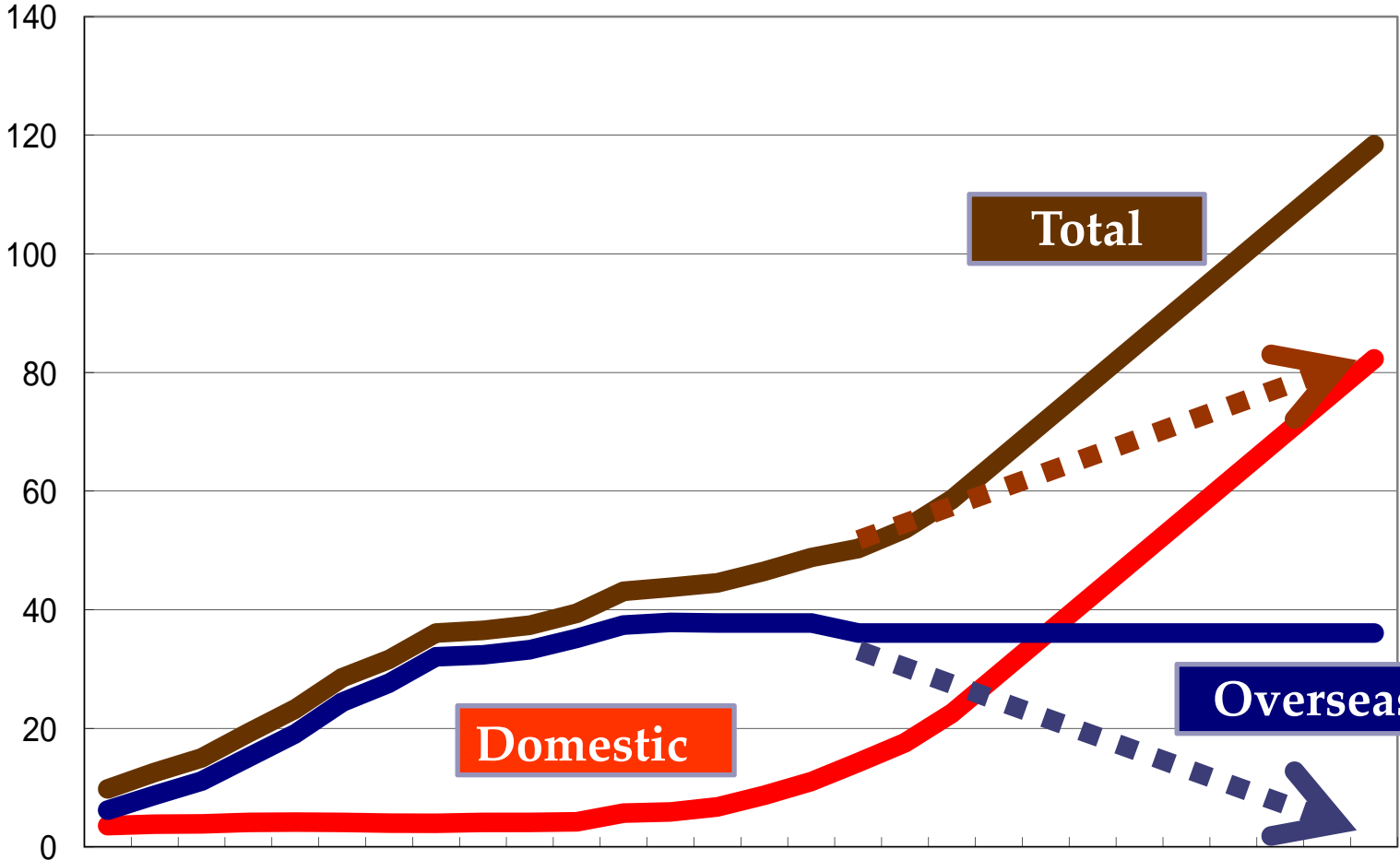
# FBR plan in the Long Term Program

Commercialization around 2050



# Japan's Excess Pu

Pu (ton)



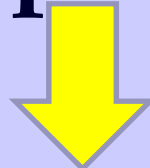
Domestic

Total

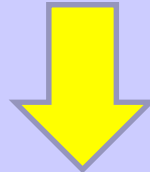
Overseas



**Japan's FBR program fails  
Reprocessing continues  
Pu stockpile increases**



**Pluthermal**



**MOX shipments are part of  
Japan's failed nuclear fuel cycle.**



# **Pluthermal no value as resource**

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- ❑ Past propaganda said FBRs would increase the effective use of Uranium resources 60 times.
- ❑ However, now Pluthermal reduces use of Uranium resources by only 10% or less.
- ❑ Only 36 LWRs use MOX in the world.

# Cost Comparison (¥/kWh)

Items	Reprocessing	Once through
Uranium fuel	0.57	0.61
MOX fuel	0.07	-
Reprocessing	0.63	-
HLW	0.16	-
TRU	0.11	-
SF Interim storage	0.04	0.14
SF direct disposal	-	0.19-0.32
Total(cycle cost)	1.60	0.9-1.1
Electricity cost	5.20	4.5-4.7



# MOX and Proliferation

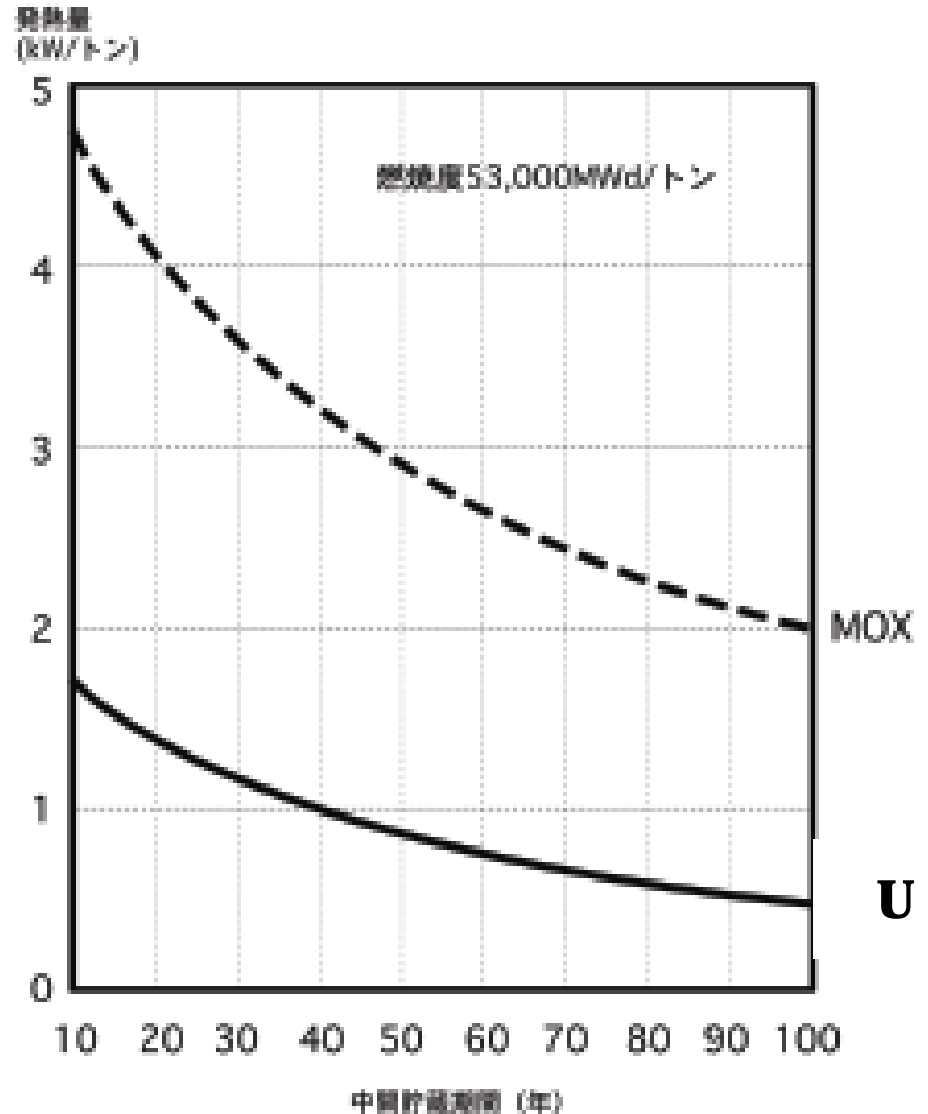
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- Japan is a virtual nuclear weapons state
- MOX use increases proliferation risk
  - Reactor grade Pu is weapon usable material
- Japan keeps the economic and technical potential to produce nuclear weapons

# Spent MOX Fuel


Heat  
comparison  
100 years !

使用済み燃料の発熱量





# Pluthermal plan by FEPC

	1999	2000	early2000	2010
1997	TEPCO KEPCO	TEPCO KEPCO	TEPCO CHUBU KYUSHU JAPCO	+ HOKKAIDO TOHOKU,HOKURIKU CHUGOKU,SHIKOKU J-POWER
2009				KYUSHU SHIKOKU CHUBU