



**Northeast Asia  
Economic Forum**

# Current Issues in South Korean Nuclear Power

EUNJUNG LIM

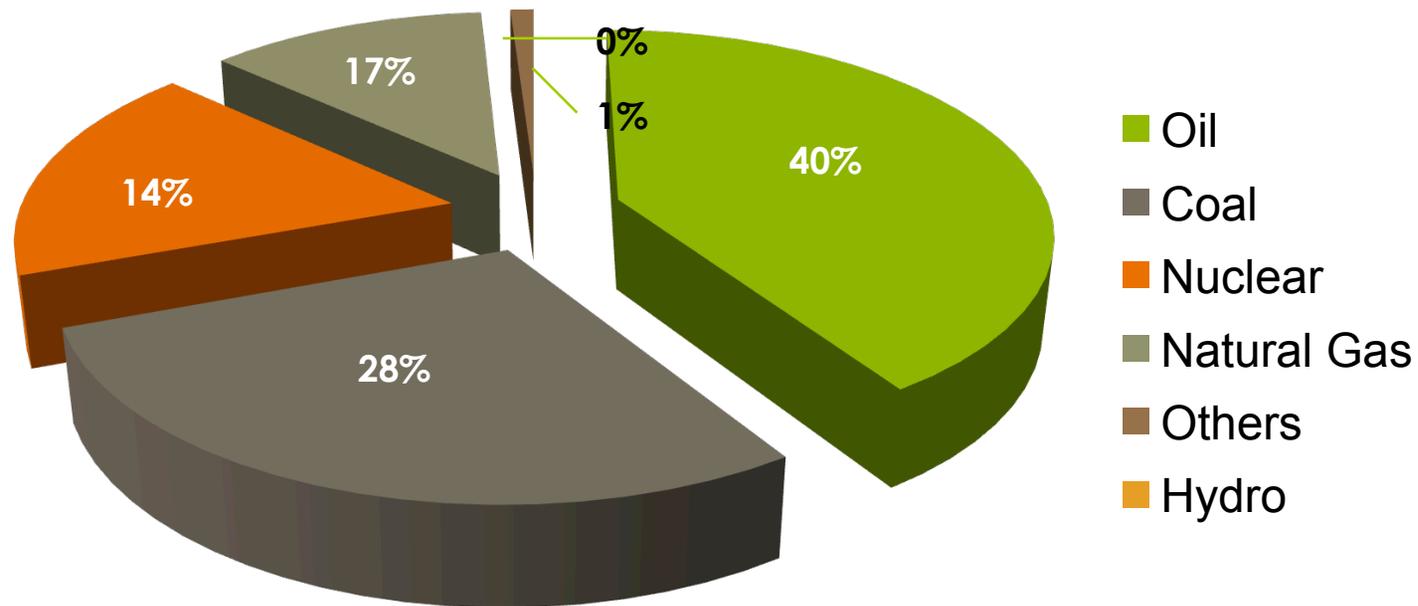
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# South Korean Dependency on Nuclear Power -1-

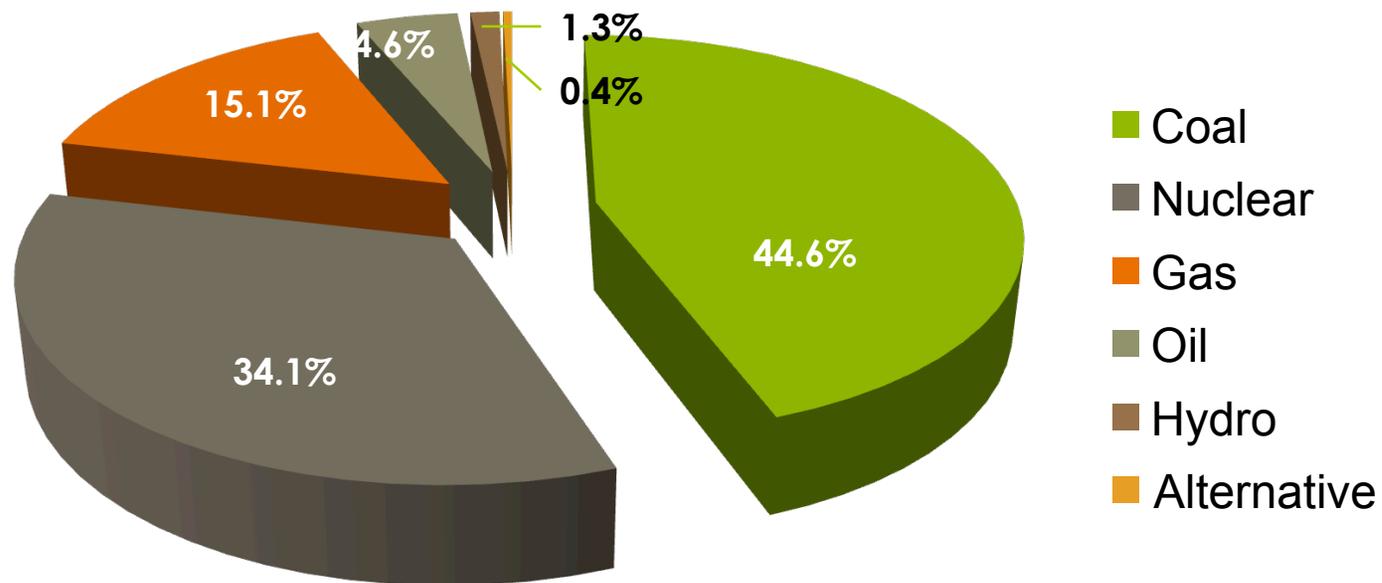
**Primary Energy Consumption by Source in South Korea**



• Source. IEA , *Energy Balances of OECD Countries, 2008*

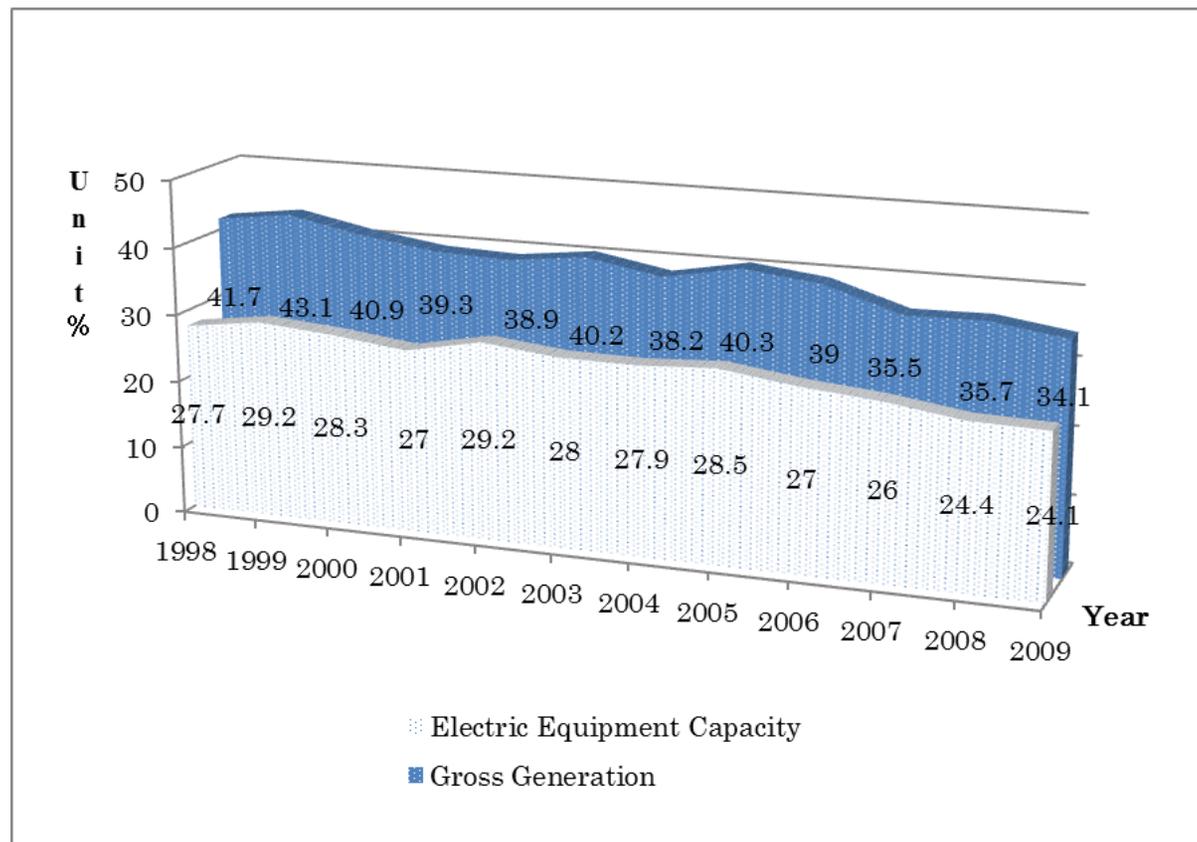
# South Korean Dependency on Nuclear Power -2-

**Composition of Electricity Generation by Source in South Korea**



• Source. KEPCO, *STATISTICS OF ELECTRIC POWER IN KOREA, 2009*

# Changes in Share of Nuclear Energy in South Korea



- Source: Korea Atomic Industrial Forum, The 2010 South Korea Nuclear Yearbook

# Current Situation of Nuclear Power Plants in South Korea

Name	Equipment Capacity (MW)	Reactor Type	Electricity Generated in 2008 (MWh)	Commercially Operated Since
Kori1	587	PWR	4,866,527	1978.04.29.
Kori2	650	PWR	5,232,770	1983.07.25.
Kori3	950	PWR	7,819,995	1985.09.30.
Kori4	950	PWR	8,602,668	1986.94.29.
Yeonggwang 1	950	PWR	8,737,294	1986.08.25.
YG2	950	PWR	7,737,933	1987.06.10.
YG3	1,000	PWR	8,239,234	1995.03.31.
YG4	1,000	PWR	8,371,814	1996.01.01.
YG5	1,000	PWR	8,282,867	2002.05.21.
YG6	1,000	PWR	8,393,735	2002.12.24.

Name	Equipment Capacity (MW)	Reactor Type	Electricity Generated in 2008 (MWh)	Commercially Operated Since
Wolseong1	679	PHWR	5,080,434	1983.04.22.
WS2	700	PHWR	5,910,585	1997.07.01.
WS3	700	PHWR	5,958,123	1998.07.01.
WS4	700	PHWR	6,057,621	1999.10.01.
Uljin1	950	PWR	8,560,877	1988.09.10.
Uljin2	950	PWR	7,620,050	1989.09.30.
Uljin3	1,000	PWR	8,464,352	1998.08.11.
Uljin4	1,000	PWR	9,236,080	1999.12.31.
Uljin5	1,000	PWR	9,234,124	2004.07.29.
Uljin6	1,000	PWR	8,550,832	2005.04.22.

<b>Total</b>	<b>150,957,936</b>
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- Source: MKE and KEPCO, *White Paper on Nuclear Power*, 2009

# Location of Nuclear Power Plant in South Korea

**In Operation** 20(17,716MW)

**Under Construction** 6(6,800MW)

**In Preparation** 2(2,800MW)



Ulsin 1,2,3,4,5,6  
Shin-Ulsin 1,2  
(In Preparation)



Wolsong 1,2,3,4  
Shin-Wolsong 1,2  
(Under Construction)

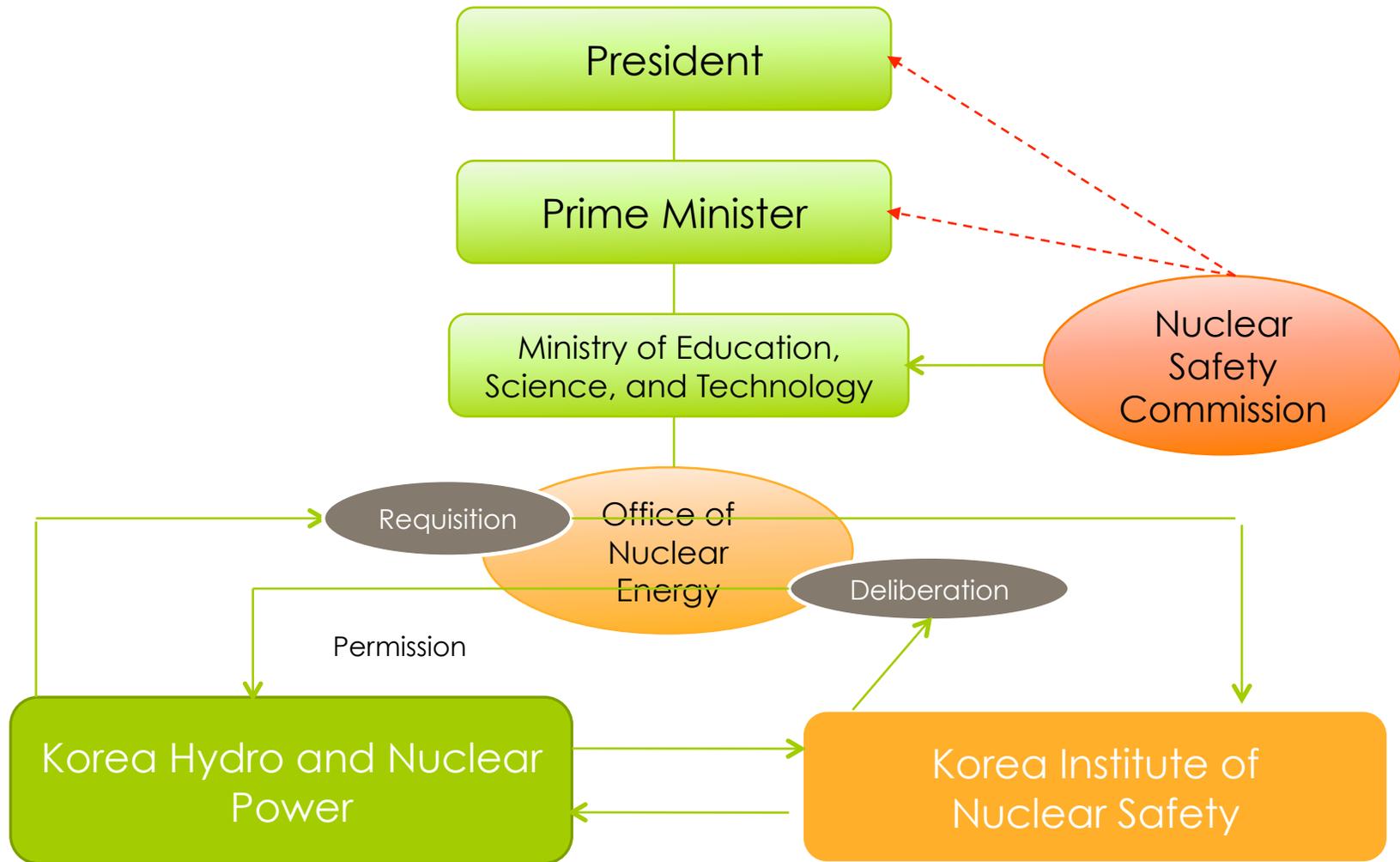


Kori 1,2,3,4 Shin-Kori1  
Shin-Kori 2,3,4  
(Under Construction)



Yeonggwang 1, 2,3,4,5,6

# Governmental Structure on Nuclear Safety



# Current Situation of Spent-fuel Storage in South Korea

(As of December 2008,  
Unit: bundle)

	Amount Stored	Equipment Capacity		Storage in Full	
		Current	After Extension	Current	After Extension
Kori 1,2,3,4	4,184	6,004	6,004	2016	2016
Yeonggwang 1,2,3,4,5,6	3,888	7,418	7,418	2016	2016
Uljin 1,2,3,4,5,6	3,055	6,582	6,582	2017	2017
Wolseong 1,2,3,4	289,640	325,632	493,632	2009	2017
Total	300,767	345,636	513,636		

- Source: Korea Atomic Industrial Forum, Inc., Yearbook on Nuclear Power, 2009