

2000

가

Nuclear Generation Cost and Nuclear Research Development Fund

150

가
가 . 가
2010 1.14 / kWh

Abstract

The main objective of this study is to analyze the effects of nuclear R&D fund to nuclear generation cost and to assess the adaptability of fund size through the comparison with the nuclear research fund in Japan. It was estimated that nuclear R&D fund increased the average annual unit cost of nuclear power generation by 1.14 won/kWh. When the size of nuclear R&D fund is compared with that in Japan, this study suggests that the current nuclear R&D fund should be largely increased taking into consideration the ratio of R&D fund to nuclear generation.

1.

/

1996
10
가

244 ('96.2.27), 245 ('96.6.25)

1.2 / kWh 3
가

2.

PA
1973 12
1974 10
9 kWh 0.085
1979 2 1980 7 0.3
/ kWh 1983 10 0.445 / kWh

가

1.

		1974 2	1980 7	1983 10	1999
(/ kWh)		0.085	0.085	0.160	0.160
		-	0.215	0.285	0.285
		0.085	0.300	0.445	0.445
(kWh)		4,042	5,211	5,225	8,549
(kWh)		97	693	1,010	3,069
(%)		2.4	13.3	20.3	35.9

2.

(1997)

(:)

0.445		JAERI	77(1.6%)
		PNC	1,091(23.3%)
			425(9.1%)
			989(21.1%)
			260(5.6%)
		-	1,840(39.3%)
			4,683(100%)

PNC, JAERI,

1999 4,778 2,915
 1,765 1,150
 1999 1,500
 1999 35% 65%
 60% 40%

9

3. 가

1997

1.2 / kWh

1996

15

2

/ 가

3.

	(GWh)	(%)
1991	56,311	84.4
1992	56,530	84.5
1993	58,138	87.2
1994	58,651	87.4
1995	67,029	87.3
1996	73,924	87.5
1997	77,086	87.6
1998	89,689	90.2

가 가

가 가 1.2 가 ,

4

가

(: / kWh)

	(A)			가
		가(B)	가	= (A)/ (B)
1991	25.14	22.62	0	1.11
1992	23.22	25.31	0	0.91
1993	25.63	24.57	0	1.04
1994	30.16	22.70	0	1.33
1995	29.46	25.17	0	1.17
1996	29.12	28.77	0	1.01
1997	28.05	30.59	1.15	0.92
1998	37.84	33.68	1.02	1.12

가 . 1991 25.14 (/ kWh) 1998 37.84 (/ kWh) 6% 가가 .

가
 가가
 가
 가
 가
 (1997)
 가가
 가
 가 1991 22.62 (/ kWh) 1998
 33.68 (/ kWh) 5.85 % 가
 가
 5%-6% 가
 가가 2% 가
 가 2% 가
 가

5.

	(GWh)	(GWh)	()	가 (/ kWh)	가 (/ kWh)
1996	73,924				
1997	77,086	73,924	88,709	1.15	30.59
1998	89,689	76,527	91,382	1.02	33.68
1999	103,217	87,383	104,859	1.02	-
2000	101,238	103,217	123,860	1.22	-
2001	99,664	101,238	121,486	1.22	35.74(**)
2002	105,248	99,664	119,597	1.14	-
2003	115,718	105,248	126,298	1.09	-
2004	118,411	115,718	138,862	1.17	-
2005	126,364	118,411	142,093	1.12	-
2006	129,464	126,364	151,637	1.17	-
2007	128,816	129,464	155,357	1.21	40.25(**)
2008	128,115	128,816	154,579	1.21	
2009	136,938	128,115	153,738	1.12	
2010	153,156	136,938	164,326	1.07	42.71(**)

() “ 5 “, , 1999.12.

(**) : 1998

2% 가

가가

가

가

가
 .
 " 5
 가
 가 1.2
 (/ kWh) , 1997
 2010 1.14 (/ kWh)
 가
 가 가
 가
 / kWh) 1998 1.14 (1.14/ 33.68*100(=3.38%)
 2010 1.14/ 42.71 *100(=2.67%)

1998 5% 307,000 GWh 89,689 GWh
 29% ,
 6 가
 가

4.

1999 5%
 29%
 가
 가 가 가