Current Status of Nuclear Power Plants in Japan

as of November 5, 2021, JAIF

			_				Review on Conformity to the New Regulatory Requirements		atory Requirements	as of November 5, 2021, 5Aff
	Plant Name	Reactor Type	Output MWe	Commercial Operation	Age	Current Status	Application by operator	Official approval by NRA	Restart of commercial operation	Note
JAPC	TOKAI-2	BWR	1,100	1978	42	Outage (2011.03.11~)	2014.05.20	2018.09.26		NRA approved a beyond 40-year operating license for Tokai-2 on November 7, 2018. Work on safety measures will be completed in December 2022.
JAPC	TSURUGA-2	PWR	1,160	1987	34	Outage (2011.05.07~)	2015.11.05			
	TOMARI-1	PWR	579	1989	32	Outage (2011.04.22~)	2013.07.08			
Hokkaido EPC	TOMARI-2	PWR	579	1991	30	Outage (2011.08.26~)	2013.07.08			
	TOMARI-3	PWR	912	2009	11	Outage (2012.05.05~)	2013.07.08			
	ONAGAWA-2	BWR	825	1995	26	Outage (2010.11.06~)	2013.12.27	2020.02.26		Work on safety measures will be completed in FY 2022.
Tohoku EPC	ONAGAWA-3	BWR	825	2002	19	Outage (2011.03.11~)				
	HIGASHIDORI-1	BWR	1,100	2005	15	Outage (2011.02.06~)	2014.06.10			
	KASHIWAZAKI KARIWA-1	BWR	1,100	1985	36	Outage (2011.08.06~)				
	KASHIWAZAKI KARIWA-2	BWR	1,100	1990	31	Outage (2007.07.05~)				
	KASHIWAZAKI KARIWA-3	BWR	1,100	1993	28	Outage (2007.07.16~)				
TEPCO	KASHIWAZAKI KARIWA-4	BWR	1,100	1994	27	Outage (2007.07.16~)				
	KASHIWAZAKI KARIWA-5	BWR	1,100	1990	31	Outage (2012.01.25~)				
	KASHIWAZAKI KARIWA-6	ABWR	1,356	1996	24	Outage (2012.03.26~)	2013.09.27	2017.12.27		
	KASHIWAZAKI KARIWA-7	ABWR	1,356	1997	24	Outage (2011.08.23~)	2013.09.27	2017.12.27		The ending date of work on safety measures is undecided.
	HAMAOKA-3	BWR	1,100	1987	34	Outage (2010.11.29~)	2015.06.16			
Chubu EPC	HAMAOKA-4	BWR	1,137	1993	28	Outage (2011.05.13~)	2014.02.14			
	HAMAOKA-5	ABWR	1,380	2005	16	Outage (2011.05.14~)				
Halamilan EDO	SHIKA-1	BWR	540	1993	28	Outage (2011.03.01~)				
Hokuriku EPC	SHIKA-2	ABWR	1,358	2006	15	Outage (2011.03.11~)	2014.08.12			
Р	MIHAMA-3	PWR	826	1976	44	Operable	2015.03.17	2016.10.05	2021.07.27	NRA approved a beyond 40-year operating license for Mihama-3 on November 16, 2016. Work on safety measures was completed in September 18, 2020. It resumed power generation on June 29, 2021, and started commercial operation on July 27, 2021. Mihama-3 was shut down on October 23, 2021 for a periodic inspection, due to failing the deadline of installation of specialized safety facilities. It is scheduled to resume power generation on October 20, 2022.
	TAKAHAMA-1	PWR	826	1974	46	Outage (2011.01.10~)	2015.03.17	2016.04.20		NRA approved a beyond 40-year operating license for Takahama-1 & -2 on June 20, 2016. Work on safety measures for Takahama-1 was completed in September 18,
Kansai EPC	TAKAHAMA-2	PWR	826	1975	45	Outage (2011.11.25~)	2015.03.17	2016.04.20		NRA approved a beyond 40-year operating license for Takahama-1 & -2 on June 20, 2016. Work on safety measures for Takahama-1 was completed in September 18, 2020. The work on safety measures for Takahama-2 will be completed in December 2021. The deadline of installation of specialized safety facilities for Takahama-1 & 2 was June 9, 2021. Takahama-1 is scheduled to resume power generation on June 20, 2023, and Takahama-2 will be on July 20, 2023.
rtaniour Er o	ТАКАНАМА-3	PWR	870	1985	36	Operable	2013.07.08	2015.02.12	2016.02.26	Takahama-3 was shut down on January 6, 2020 for a periodic inspection. It extended the suspension period, due to the detailed investigations of damaged SG tube. It resumed power generation on March 10, 2021, and started commercial operation on April 5, 2021.
	TAKAHAMA-4	PWR	870	1985	36	Operable	2013.07.08	2015.02.12	2017.06.16	Takahama-4 was shut down on October 7, 2020 for a periodic inspection. It resume power generation on April 15, 2021, and started commercial operation on May 13, 202 Ohi-3 was shut down on July 20, 2020 for a periodic inspection. It resumed power generation on July 5, 2021, and started commercial operation on July 30, 2021. Ohii-4 was shut down on November 3, 2020 for a periodic inspection. It resumed power generation on January 17, 2021, and started commercial operation on February 12, 2021.
	OHI-3	PWR	1,180	1991	29	Operable	2013.07.08	2017.05.24	2018.04.10	
	OHI-4	PWR	1,180	1993	28	Operable	2013.07.08	2017.05.24	2018.06.05	
Chugoku EPC	SHIMANE-2	BWR	820	1989	32	Outage (2012.01.27~)	2013.12.25	2021.09.15		NRA approved a review report finding that the Shimane-2 was compatible with the Japan's new regulatory standards on September 15, 2021.
Shikoku EPC	IKATA-3	PWR	890	1994	26	Operable	2013.07.08	2015.07.15	2016.09.07	Ikata-3 was shut down on December 26, 2019 for a periodic inspection. Hiroshima High Court made a provisional injunction against the restart of Ikata-3 on January 17, 2020. Hiroshima High court canceled a provisional injunction on March 18, 2021. Fuel loading has been done during September 18-20, 2021. The restart date has been rescheduled, due to the violation of safety regulations.
	GENKAI-3	PWR	1,180	1994	27	Operable	2013.07.12	2017.01.18	2018.05.16	Genkai-3 was shut down on September 18, 2020 for a periodic inspection. It resumed power generation on November 23, 2020, and started commercial operation on December 22, 2020.
Kyushu EPC	GENKAI-4	PWR	1,180	1997	24	Operable	2013.07.12	2017.01.18	2018.07.19	Genkai-4 was shut down on December 19, 2020 for a periodic inspection. It resumed power generation on March 19, 2021, and started commercial operation on April 15, 2021.
Tryushiu LFO	SENDAI-1	PWR	890	1984	37	Operable	2013.07.08	2014.09.10	2015.09.10	Sendai-1 was shut down on October 17, 2021 for a periodic inspection and started a special inspection to be prepared for the application of a beyond 40-year operating license on October 18, 2021.
	SENDAI-2	PWR	890	1985	35	Operable	2013.07.08	2014.09.10	2015.11.17	Sendai-2 was shut down on May 20, 2020 for a periodic inspection. It resumed power generation on December 24, 2020, and started commercial operation on January 22, 2021.
Total	33 units		33,083				25 units	17 units	10 units	

NRA (established on 2012.09.19) reviews the following applications by operators in conformity with new regulatory requirements (standards) which came into effect on 2013.07.08.

Changes in reactor installment license (After preliminary approval of draft review report, a month of public consultation will be normally conducted for official permission)/Plan for construction works (Construction Permit Application)/Operational safety programs (Technical Specification) in addition to the NRA approval of the above applications, inspections before & after reactor start-up (Pre-Operational Inspection) are required before resuming commercial operation. Consent of local governments is also required for restart (but is not legally binding).

Takahama-3 &-4, Ikata-3 and Genkai-3 were granted restart permission by the regulator (NRA) based on the assumption of using MOX fuel.

The new regulatory standard requires the installation of specialized safety facilities within 5 years of approval of the main construction plan. On April 24, 2019, NRA decided on a policy to shut down restarted reactors which do not meet the above requirement.

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								Application by operator	Preliminary approval by NRA	Official approval by NRA	Note
	J-power	ОНМА	ABWR	1,383	TBD	_	Under Construction	2014.12.16			Resumed construction on October 1, 2012.
UC	TEPCO	HIGASHIDORI-1	ABWR	1,385	TBD	_	Under Construction				Stopped construction after March 11, 2011.
	Chugoku EPC	SHIMANE-3	ABWR	1,373	TBD	_	Under Construction	2018.08.10			
	Total	3 units		4,141				2 unit			On August 28, 2018, TEPCO started a geological survey comprehensively for the Higashidori nuclear power plant in Aomori Prefecture.

	Owner	Plant Name	Reactor Type	Output MWe	Operation ended or Permanent shut down	Note					
	JAEA	JPDR	BWR	12	1976.03.18	Decommissioning completed on April 31, 1996.					
	JAEA	FUGEN	ATR	165	2003.03.29	Decommissioning started on February 12, 2008, and to be completed in FY 2033.					
	JAPC	TOKAI	GCR	166	1998.03.31	Decommissioning started in 2001, and to be completed in FY 2030.					
	Chubu EPC	HAMAOKA-1	BWR	540	2009.01.30	Decommissioning started on November 18, 2009, and to be completed in FY 2036.					
	Chaba EPC	HAMAOKA-2	BWR	840	2009.01.30	Decommissioning started on November 18, 2009, and to be completed in FY 2036.					
	TEPCO	FUKUSHIMA Daiichi-1	BWR	460	2012.04.19						
		FUKUSHIMA Daiichi-2	BWR	784	2012.04.19	(Decommissioning to be completed 30-40 years after the cold shutdown.)					
CD		FUKUSHIMA Daiichi-3	BWR	784	2012.04.19	(Decommissioning to be completed 30-40 years after the cold shutdown.)					
		FUKUSHIMA Daiichi-4	BWR	784	2012.04.19						
		FUKUSHIMA Daiichi-5	BWR	784	2014.01.31	(Fukushima-Daiichi -5& -6 are be utilized effectively to decommission Fukushima-Daiichi -1,2,3 & 4.)					
		FUKUSHIMA Daiichi-6	BWR	1,100	2014.01.31	(Fukushima-Daiichi -5& -6 are be utilized effectively to decommission Fukushima-Daiichi -1,2,3 & 4.)					
	JAPC	TSURUGA-1	BWR	357	2015.04.27	Decommissioning to be completed in FY 2039.					
	Kansai EPC	MIHAMA-1	PWR	340	2015.04.27	Decommissioning to be completed in FY 2045.					
		MIHAMA-2	PWR	500	2015.04.27	Decommissioning to be completed in FY 2045.					
	Kyushu EPC	GENKAI-1	PWR	559	2015.04.27	Decommissioning to be completed in FY 2054.					
	Chugoku EPC	SHIMANE-1	BWR	460	2015.04.30	Decommissioning to be completed in FY 2045.					
	Shikoku EPC	IKATA-1	PWR	566	2016.05.10	Decommissioning to be completed in FY 2056.					
ļ	JAEA	MONJU	FBR	280	2017.12.06*	Decommissioning to be completed in FY 2047.					
	. ED0	OHI-1	PWR	1,175	2018.03.01	Decommissioning to be completed in FY 2048.					
	Kansai EPC	OHI-2	PWR	1,175	2018.03.01	Decommissioning to be completed in FY 2048.					
	Shikoku EPC	IKATA-2	PWR	566	2018.05.23	Decommissioning to be completed in FY 2059.					
	Tohoku EPC	ONAGAWA-1	BWR	524	2018.12.21	Decommissioning to be completed in FY 2053.					
	Kyushu EPC	GENKAI-2	PWR	559	2019.04.09	Decommissioning to be completed in FY 2054.					
-	TEPCO	FUKUSHIMA Daini-1	BWR	1,100	2019.09.30	Decommissioning to be completed in FY 2064.					
		FUKUSHIMA Daini-2	BWR	1,100	2019.09.30	Decommissioning to be completed in FY 2064.					
		FUKUSHIMA Daini-3	BWR	1,100	2019.09.30	Decommissioning to be completed in FY 2064.					
		FUKUSHIMA Daini-4	BWR	1,100	2019.09.30	Decommissioning to be completed in FY 2064.					
	Total	27 units		17,880		*Date of Application for Decommissioning Plan Approval.					

Based on public information released by each electric power company and Nuclear Regulation Authority (NRA)