



Australian Government

Department of the Environment and Energy

Australian Energy Statistics, Table O

Australian electricity generation, by fuel type, physical units

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Australian electricity generation, by fuel type, physical units

AUS	NSW	VIC	QLD	WA	SA	TAS	NT
Financial year	Financial year	Financial year	Financial year	Financial year	Financial year	Financial year	Financial year
Calendar year	Calendar year	Calendar year	Calendar year	Calendar year	Calendar year	Calendar year	Calendar year

State Summary

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Batteries

[Australian electricity supplied from utility-scale battery storage](#)

Table O1
Australian electricity generation, by fuel type, physical units

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(e)
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh
Non-renewable fuels																													
Black coal	87,573.0	89,511.0	94,325.1	97,872.7	100,544.1	102,522.1	106,089.6	109,452.2	116,969.5	118,586.3	123,833.5	134,264.0	116,774.7	115,296.6	121,182.3	127,788.5	130,231.6	132,368.5	129,569.3	127,270.5	123,724.5	116,948.8	116,654.4	111,491.1	106,965.5	107,639.4	114,295.0	118,272.3	121,592.6
Brown coal	33,594.0	36,048.0	34,559.0	33,248.0	34,890.0	35,832.0	39,427.0	41,893.0	46,633.0	49,703.0	50,200.0	52,223.0	56,493.0	55,160.3	55,572.8	53,377.8	54,552.8	54,375.8	54,658.7	56,981.4	56,068.3	55,298.1	55,067.7	47,555.1	46,076.2	50,970.3	48,795.9	43,557.8	36,067.0
Natural gas	14,359.0	10,772.0	11,633.0	12,295.0	12,199.0	14,913.0	12,445.0	11,426.0	12,934.0	16,001.0	16,245.0	17,271.0	31,730.0	29,375.3	30,919.4	23,802.9	22,725.9	31,849.9	34,955.8	37,660.4	44,585.4	48,996.2	48,571.6	51,053.4	54,393.9	52,916.9	50,536.1	50,459.7	53,839.4
Oil products	3,552.0	3,396.0	2,362.0	2,421.0	2,320.0	2,738.0	2,805.0	2,175.0	1,821.0	1,729.0	1,784.0	2,044.0	2,446.0	1,661.0	1,388.7	2,841.0	3,058.0	2,893.0	4,058.0	3,388.0	3,106.8	3,093.8	2,702.5	4,464.3	5,012.4	6,828.5	5,655.6	5,272.6	5,262.6
Other a														1,792.2	1,817.0	434.0	517.0	479.0	106.0	3,579.9	2,991.0	2,716.1	1,088.1	1,945.3					
Total non-renewable	139,078.0	139,727.0	142,879.1	145,836.7	149,953.1	156,005.1	160,766.6	164,946.2	178,357.5	186,019.3	192,062.5	205,802.0	207,443.7	203,285.4	210,880.2	208,244.2	211,085.3	221,966.2	223,347.8	228,880.2	230,476.0	227,053.0	224,084.3	216,509.2	212,448.0	218,355.1	219,282.5	217,562.4	216,761.6
Renewable fuels																													
Biomass	750.0	769.0	670.0	670.0	670.0	723.0	928.0	965.0	1,029.0	1,133.0	1,134.0	645.0	950.0	1,583.6	1,799.5	3,830.0	3,911.0	3,953.0	4,596.0	2,795.2	2,777.4	2,101.7	3,043.7	3,143.5	3,499.4	3,592.2	3,789.9	3,500.5	3,534.1
Wind					4.0	7.0	7.0	7.0	8.0	28.0	58.0	210.0	364.0	703.1	705.0	885.0	1,713.1	2,611.1	3,093.1	3,823.8	5,051.7	6,084.9	6,969.7	7,959.6	10,252.0	11,466.6	12,199.5	12,597.0	14,989.4
Hydro	14 880.0	16 103.0	15 768.0	16 953.0	16 649.0	16 239.0	15 731.0	16 852.0	15 733.0	16 563.0	16 720.0	16 933.0	16 054.0	16 490.0	16 331.1	15 612.2	16 029.2	14 517.0	12 056.9	11 869.4	13 548.7	16 806.7	14 083.3	18 269.6	18 421.0	13 445.0	15 318.2	16 284.9	15 838.8
Large-scale solar PV																									49.7	107.2	457.2	672.4	1,007.6
Small-scale solar PV			10.9	13.3	15.9	18.9	23.4	27.8	33.5	37.7	43.5	50.0	58.3	58.3	68.1	77.8	90.3	104.7	122.8	155.6	424.9	1,530.4	2,558.7	3,826.3	4,366.3	5,424.1	6,381.0	7,399.3	8,922.4
Geothermal														0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.2	0.5	0.5
Total renewable	15,630.0	16,872.0	16,448.9	17,636.3	17,338.9	16,987.9	16,689.4	17,851.8	16,803.5	17,761.7	17,955.5	17,838.0	17,426.3	18,835.0	18,904.2	20,405.5	21,744.1	21,186.3	19,869.3	18,644.5	21,803.2	26,524.2	26,655.9	33,199.5	36,588.8	34,035.8	38,146.0	40,454.6	44,292.3
Total	154,708.0	156,599.0	159,328.0	163,473.0	167,292.0	172,993.0	177,456.0	182,798.0	195,161.0	203,781.0	210,018.0	223,640.0	224,870.0	222,120.4	229,784.4	228,649.7	232,829.4	243,152.5	243,217.1	247,524.7	252,279.2	253,577.2	250,740.2	249,708.7	249,036.8	252,390.8	257,428.6	258,017.0	261,053.9

Calendar year

	2015	2016	2017	2018(e)
	GWh	GWh	GWh	GWh
Non-renewable fuels				
Black coal	111,628.3	115,331.6	120,844.6	120,600.8
Brown coal	50,547.9	46,990.9	38,289.3	35,962.1
Natural gas	50,875.9	48,521.8	55,176.3	50,244.9
Oil products	6,169.6	5,559.9	5,309.1	5,258.6
Total non-renewable	219,221.7	216,404.1	219,619.2	212,066.3
Renewable fuels				
Biomass	3,667.8	3,647.6	3,543.1	3,539.3
Wind	11,838.5	13,026.4	13,193.9	16,266.5
Hydro	14,208.3	17,928.0	13,718.5	17,451.9
Large-scale solar PV	283.5	593.7	823.1	2,139.2
Small-scale solar PV	5,923.0	6,880.9	8,132.0	9,941.9
Geothermal	0.4	0.4	0.3	
Total renewable	35,921.5	42,077.0	39,410.9	49,338.8
Total	255,143.2	258,481.1	259,030.1	261,405.1

Totals may not add due to rounding.

a Includes multi-fuel fired power plants. This series was discontinued in 2013-14 and multi-fuel allocated to specific fuel types.

(e) estimate only, see method note

Table O2
Electricity generation in New South Wales, by fuel type, physical units

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(e)
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh
Non-renewable fuels										
Black coal	67,650.3	64,398.6	60,732.2	60,453.7	56,798.6	55,819.5	52,562.2	55,334.5	55,967.1	57,151.5
Brown coal										
Natural gas	2,445.1	4,681.3	4,742.7	4,212.1	5,168.7	5,528.3	4,528.4	4,628.6	3,330.8	3,039.5
Oil products	24.7	5.6	61.4	42.1	190.9	170.7	284.3	289.5	321.6	415.5
Other a	336.6	493.6	266.1							
Total non-renewable	70,456.7	69,579.1	65,802.4	64,707.9	62,158.2	61,518.5	57,374.9	60,252.6	59,619.5	60,606.5
Renewable fuels										
Biomass	674.7	681.1	613.3	822.3	838.8	882.3	1,023.2	1,046.3	1,102.7	1,164.4
Wind	41.3	432.5	530.1	697.6	832.6	899.2	1,376.0	1,898.8	1,872.0	2,448.7
Hydro	3,173.7	3,820.8	5,267.0	3,792.8	5,651.6	4,213.1	3,113.7	5,191.0	6,139.1	4,844.6
Large-scale solar PV						10.6	60.2	399.5	567.6	700.0
Small-scale solar PV	36.3	119.2	526.3	657.7	857.6	964.9	1,211.2	1,461.9	1,706.8	2,095.8
Geothermal										
Total renewable	3,926.0	5,053.6	6,936.7	5,970.4	8,180.6	6,970.1	6,784.3	9,997.6	11,388.3	11,253.5
Total	74,382.7	74,632.7	72,739.1	70,678.3	70,338.8	68,488.6	64,159.2	70,250.2	71,007.8	71,860.0

	Calendar year			
	2015	2016	2017	2018(e)
	GWh	GWh	GWh	GWh
Non-renewable fuels				
Black coal	54,528.2	54,111.0	57,461.9	57,251.2
Brown coal				
Natural gas	4,933.8	3,542.8	3,876.1	2,238.7
Oil products	290.4	312.0	371.4	411.5
Total non-renewable	59,752.5	57,965.8	61,709.5	59,901.4
Renewable fuels				
Biomass	1,027.2	1,051.0	1,130.9	1,166.1
Wind	1,722.1	2,064.5	1,944.9	3,122.0
Hydro	3,636.7	7,137.9	4,020.9	4,946.8
Large-scale solar PV	228.2	507.1	632.6	967.9
Small-scale solar PV	1,344.6	1,577.8	1,876.4	2,367.9
Geothermal				
Total renewable	7,958.8	12,338.3	9,605.7	12,570.7
Total	67,711.2	70,304.0	71,315.1	72,472.1

Totals may not add due to rounding.

a Includes multi-fuel fired power plants. This series was discontinued in 2013-14 and multi-fuel allocated to specific fuel types.

(e) estimate only, see method note

Table O3
Electricity generation in Victoria, by fuel type, physical units

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(e)
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh
Non-renewable fuels										
Black coal								31.9	36.3	
Brown coal	52,094.0	51,541.7	51,066.5	52,059.7	45,317.6	43,977.7	48,336.8	46,202.2	43,557.8	36,067.0
Natural gas	1,451.9	1,697.9	1,289.8	1,142.5	3,247.7	3,239.3	2,390.9	1,892.2	2,658.7	3,899.4
Oil products	20.4	1.1	38.2	4.0	10.7	145.8	156.0	70.6	109.3	164.8
Other a	61.1	115.9	114.5							
Total non-renewable	53,627.4	53,356.6	52,509.0	53,206.2	48,576.0	47,362.8	50,883.7	48,196.9	46,362.1	40,131.2
Renewable fuels										
Biomass	292.0	303.4	339.6	859.3	845.1	886.9	672.2	747.7	694.5	661.8
Wind	573.0	1,406.0	1,434.4	1,416.2	2,005.1	2,771.9	3,067.8	3,341.8	3,560.9	4,224.2
Hydro	557.8	843.7	1,118.5	1,047.4	940.3	1,103.0	1,170.9	1,207.6	824.8	785.3
Large-scale solar PV						4.4	9.1	11.5	13.8	39.4
Small-scale solar PV	24.1	66.2	205.5	378.7	580.1	674.2	874.8	1,056.1	1,231.7	1,481.2
Geothermal										
Total renewable	1,446.9	2,619.3	3,098.0	3,701.6	4,370.6	5,440.4	5,794.8	6,364.7	6,325.6	7,191.9
Total	55,074.3	55,975.9	55,607.0	56,907.8	52,946.6	52,803.2	56,678.5	54,561.7	52,687.7	47,323.1

	Calendar year			
	2015	2016	2017	2018(e)
	GWh	GWh	GWh	GWh
Non-renewable fuels				
Black coal				
Brown coal	47,848.0	45,682.7	38,289.3	35,962.1
Natural gas	1,736.0	1,634.4	4,175.7	3,027.1
Oil products	128.4	121.6	152.5	164.8
Total non-renewable	49,712.4	47,438.8	42,617.5	39,154.0
Renewable fuels				
Biomass	736.2	761.4	686.0	666.8
Wind	3,288.5	3,703.2	3,748.3	4,580.0
Hydro	1,323.3	960.3	754.3	1,114.2
Large-scale solar PV	11.9	13.6	19.1	177.3
Small-scale solar PV	970.6	1,141.3	1,343.8	1,645.3
Geothermal				
Total renewable	6,330.5	6,579.8	6,551.5	8,183.6
Total	56,042.9	54,018.6	49,169.0	47,337.6

Totals may not add due to rounding.

a Includes multi-fuel fired power plants.

(e) estimate only, see method note

Table O4
Electricity generation in Queensland, by fuel type, physical units

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(e)
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh
Non-renewable fuels										
Black coal	50,882.2	49,713.7	45,864.3	45,417.3	44,415.6	40,260.7	44,553.8	48,015.8	51,042.7	53,480.2
Brown coal										
Natural gas	9,257.2	12,020.6	14,595.3	15,303.4	13,909.5	15,454.3	18,248.5	13,816.9	12,236.6	11,112.1
Oil products	711.4	370.7	373.7	306.0	1,042.6	959.5	1,197.2	1,199.1	1,215.9	1,001.9
Other a	691.8	1,025.9	1,038.7	15.7	54.2					
Total non-renewable	61,542.6	63,130.9	61,872.0	61,042.4	59,421.9	56,674.5	63,999.5	63,031.9	64,495.2	65,594.2
Renewable fuels										
Biomass	1,588.5	1,548.0	920.7	1,124.8	1,239.2	1,485.8	1,641.4	1,771.8	1,410.0	1,434.1
Wind	27.3	30.9	27.3	27.7	30.7	33.7	32.5	28.4	29.0	28.5
Hydro	820.2	572.8	965.6	723.2	684.1	820.9	649.1	491.7	672.2	657.3
Large-scale solar PV						4.0	5.9	7.3	34.1	171.5
Small-scale solar PV	50.8	121.3	400.6	760.3	1,310.2	1,460.6	1,788.0	2,055.9	2,335.9	2,760.9
Geothermal	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.2	0.5	
Total renewable	2,487.3	2,273.5	2,314.7	2,636.5	3,264.7	3,805.5	4,117.5	4,355.3	4,481.7	5,052.1
Total	64,029.9	65,404.4	64,186.7	63,678.9	62,686.6	60,480.0	68,117.0	67,387.1	68,976.8	70,646.3

	Calendar year			
	2015	2016	2017	2018(e)
	GWh	GWh	GWh	GWh
Non-renewable fuels				
Black coal	46,370.9	49,895.8	52,445.9	52,947.4
Brown coal				
Natural gas	15,770.3	12,533.3	11,687.8	10,352.6
Oil products	1,080.3	1,171.8	1,140.7	999.5
Total non-renewable	63,221.5	63,601.0	65,274.4	64,299.5
Renewable fuels				
Biomass	1,639.6	1,540.8	1,436.2	1,437.8
Wind	30.8	26.6	28.5	142.8
Hydro	508.9	543.7	661.4	816.0
Large-scale solar PV	8.0	17.1	85.7	767.3
Small-scale solar PV	1,929.3	2,184.0	2,532.2	3,018.4
Geothermal	0.4	0.4	0.3	0.0
Total renewable	4,117.0	4,312.5	4,744.1	6,182.3
Total	67,338.5	67,913.5	70,018.6	70,481.7

Totals may not add due to rounding.

a Includes multi-fuel fired power plants. This series was discontinued in 2013-14 and multi-fuel allocated to specific fuel types.

(e) estimate only, see method note

Table O5
Electricity generation in Western Australia, by fuel type, physical units

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(e)
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh
Non-renewable fuels										
Black coal	8,738.0	9,612.2	10,352.3	10,783.3	10,276.9	10,885.3	10,523.4	10,912.7	11,226.2	10,960.9
Brown coal										
Natural gas	14,556.1	16,006.3	18,115.7	17,538.3	17,645.1	20,880.0	20,412.8	21,899.6	22,941.4	24,687.9
Oil products	1,464.4	1,373.4	1,413.8	1,171.2	2,045.0	2,486.1	4,223.5	3,347.4	2,883.5	2,540.9
Other a	2,153.0	1,017.8	1,029.4	1,072.4	1,855.8					
Total non-renewable	26,911.5	28,009.7	30,911.2	30,565.2	31,822.8	34,251.4	35,159.7	36,159.6	37,051.0	38,189.7
Renewable fuels										
Biomass	119.6	121.2	111.7	125.7	108.3	124.0	126.9	94.6	183.2	153.0
Wind	675.1	664.0	719.3	1,278.7	1,300.2	1,578.8	1,643.2	1,476.5	1,616.7	1,593.0
Hydro	na	na	na		221.3	205.4	206.1	217.0	212.6	217.9
Large-scale solar PV						24.1	23.9	28.3	34.3	45.6
Small-scale solar PV	18.7	57.5	198.1	331.4	449.5	495.8	622.1	760.8	941.1	1,196.4
Geothermal										
Total renewable	813.4	842.7	1,029.1	1,735.8	2,079.3	2,428.2	2,622.2	2,577.2	2,987.9	3,205.9
Total	27,724.9	28,852.4	31,940.3	32,301.0	33,902.1	36,679.6	37,781.9	38,736.8	40,039.0	41,395.6

	Calendar year			
	2015	2016	2017	2018(e)
	GWh	GWh	GWh	GWh
Non-renewable fuels				
Black coal	10,729.2	11,324.7	10,936.8	10,402.1
Brown coal				
Natural gas	21,017.6	22,590.3	24,060.5	24,796.7
Oil products	3,910.0	3,186.0	2,709.9	2,540.9
Total non-renewable	35,656.8	37,101.0	37,707.2	37,739.7
Renewable fuels				
Biomass	147.6	180.8	169.8	147.9
Wind	1,578.6	1,538.6	1,527.3	1,615.3
Hydro	211.9	218.9	217.9	217.9
Large-scale solar PV	24.6	33.1	46.3	47.5
Small-scale solar PV	690.4	852.3	1,076.3	1,345.2
Geothermal				
Total renewable	2,653.1	2,823.7	3,037.5	3,373.8
Total	38,309.9	39,924.7	40,744.7	41,113.5

Totals may not add due to rounding.

na not available.

a Includes multi-fuel fired power plants.

(e) estimate only, see method note

Table O6
Electricity generation in South Australia, by fuel type, physical units

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(e)
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh
Non-renewable fuels										
Black coal										
Brown coal	4,887.4	4,526.6	4,231.6	3,008.0	2,237.5	2,098.5	2,633.6	2,593.7		
Natural gas	7,371.4	6,937.0	6,693.1	6,703.2	7,060.9	5,998.1	5,003.8	4,956.0	6,028.2	7,703.5
Oil products	63.2	163.9	89.3	97.8	141.0	106.9	197.3	136.2	183.1	137.5
Other a	337.4	335.4	266.9		8.5					
Total non-renewable	12,659.4	11,962.9	11,280.9	9,809.0	9,447.9	8,203.5	7,834.7	7,685.9	6,211.3	7,841.0
Renewable fuels										
Biomass	86.1	85.5	77.8	70.6	72.6	80.9	84.9	94.6	78.0	89.1
Wind	2,020.2	2,029.0	2,890.3	3,126.5	3,313.5	4,150.3	4,291.9	4,398.0	4,413.7	5,572.9
Hydro	4.1	4.2	4.1	4.4	5.9	5.9	10.8	6.5	3.5	6.4
Large-scale solar PV						1.4	1.7	2.0	3.9	20.0
Small-scale solar PV	23.4	50.7	182.8	398.1	558.6	677.9	802.2	895.5	1,000.8	1,163.4
Geothermal										
Total renewable	2,133.8	2,169.4	3,155.0	3,599.6	3,950.6	4,916.5	5,191.6	5,396.5	5,499.9	6,851.7
Total	14,793.2	14,132.3	14,435.9	13,408.6	13,398.5	13,120.0	13,026.3	13,082.4	11,711.2	14,692.7

Calendar year

	2015	2016	2017	2018(e)
	GWh	GWh	GWh	GWh
Non-renewable fuels				
Black coal				
Brown coal	2,699.9	1,308.1		
Natural gas	4,907.8	4,946.9	7,656.2	6,776.8
Oil products	158.1	159.0	154.0	139.8
Total non-renewable	7,765.8	6,414.1	7,810.2	6,916.6
Renewable fuels				
Biomass	77.2	78.7	88.5	89.1
Wind	4,217.2	4,562.2	4,888.9	5,704.0
Hydro	8.7	5.0	4.9	6.4
Large-scale solar PV	1.8	3.8	11.7	142.4
Small-scale solar PV	850.3	959.1	1,101.2	1,316.4
Geothermal				
Total renewable	5,155.1	5,608.8	6,095.3	7,258.3
Total	12,920.9	12,022.9	13,905.4	14,174.9

Totals may not add due to rounding.

a Includes multi-fuel fired power plants. This series was discontinued in 2013-14 and multi-fuel allocated to specific fuel types.

(e) estimate only, see method note

Table O7
Electricity generation in Tasmania, by fuel type, physical units

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(e)
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh
Non-renewable fuels										
Black coal										
Brown coal										
Natural gas	705.3	1,109.8	1,506.0	1,562.7	1,752.5	985.0	131.0	858.0	897.6	976.8
Oil products	64.5	73.9	94.9	60.5	12.1	19.7	18.9	90.3	21.8	33.0
Other a					26.8					
Total non-renewable	769.8	1,183.7	1,600.9	1,623.2	1,791.4	1,004.7	149.9	948.3	919.4	1,009.8
Renewable fuels										
Biomass	25.1	29.0	29.9	33.3	33.0	30.6	34.6	27.3	24.5	24.6
Wind	486.9	489.3	483.5	423.1	477.5	818.0	1,055.1	1,056.0	1,104.8	1,122.2
Hydro	7,313.6	8,307.2	9,451.5	8,515.5	10,766.4	12,072.6	8,294.4	8,204.3	8,432.7	9,327.4
Large-scale solar PV						0.0	0.0	0.0	0.3	0.6
Small-scale solar PV	1.8	5.6	11.6	22.7	53.3	73.5	96.8	108.5	121.6	138.9
Geothermal										
Total renewable	7,827.4	8,831.1	9,976.5	8,994.6	11,330.2	12,994.8	9,480.9	9,396.0	9,683.9	10,613.7
Total	8,597.2	10,014.8	11,577.4	10,617.8	13,121.6	13,999.5	9,630.9	10,344.3	10,603.3	11,623.5

	Calendar year			
	2015	2016	2017	2018(e)
	GWh	GWh	GWh	GWh
Non-renewable fuels				
Black coal				
Brown coal				
Natural gas	106.7	850.5	1,326.5	632.9
Oil products	26.0	77.5	27.4	33.0
Total non-renewable	132.7	928.0	1,353.9	665.9
Renewable fuels				
Biomass	32.3	26.8	24.6	24.6
Wind	1,001.3	1,131.3	1,056.0	1,102.4
Hydro	8,518.8	9,062.2	8,059.1	10,350.7
Large-scale solar PV	0.1	0.3	0.5	1.2
Small-scale solar PV	102.6	114.8	129.7	149.0
Geothermal				
Total renewable	9,655.1	10,335.4	9,269.9	11,627.8
Total	9,787.9	11,263.3	10,623.8	12,293.8

Totals may not add due to rounding.

a Includes multi-fuel fired power plants. This series was discontinued in 2013-14 and multi-fuel allocated to specific fuel types.

(e) estimate only, see method note

Table O8

Electricity generation in the Northern Territory, by fuel type, physical units

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(e)
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh
Non-renewable fuels										
Black coal										
Brown coal										
Natural gas	1,873.4	2,132.5	2,053.6	2,109.3	2,269.0	2,308.9	2,201.4	2,484.7	2,366.5	2,420.2
Oil products	1,039.3	1,118.2	1,022.5	1,020.9	1,022.0	1,123.6	751.3	522.6	537.4	969.0
Other a		2.4	0.5							
Total non-renewable	2,912.7	3,253.1	3,076.6	3,130.2	3,291.0	3,432.5	2,952.7	3,007.3	2,903.9	3,389.2
Renewable fuels										
Biomass	9.2	9.2	8.7	7.7	6.5	8.9	9.0	7.7	7.6	7.1
Wind										
Hydro										
Large-scale solar PV						5.1	6.4	8.5	18.5	30.5
Small-scale solar PV	0.5	4.3	5.6	9.7	16.9	19.4	28.9	42.4	61.3	85.8
Geothermal										
Total renewable	9.7	13.5	14.3	17.4	23.4	33.3	44.3	58.7	87.3	123.4
Total	2,922.4	3,266.6	3,090.9	3,147.6	3,314.4	3,465.8	2,997.0	3,066.0	2,991.2	3,512.5

	Calendar year			
	2015	2016	2017	2018(e)
	GWh	GWh	GWh	GWh
Non-renewable fuels				
Black coal				
Brown coal				
Natural gas	2,403.7	2,423.6	2,393.3	2,420.2
Oil products	576.3	532.0	753.2	969.0
Total non-renewable	2,980.0	2,955.6	3,146.5	3,389.2
Renewable fuels				
Biomass	7.8	8.2	7.1	7.1
Wind				
Hydro	0.0	0.0	0.0	0.0
Large-scale solar PV	8.9	18.7	27.1	35.5
Small-scale solar PV	35.2	51.6	72.6	99.8
Geothermal				
Total renewable	51.8	78.5	106.9	142.4
Total	3,031.8	3,034.1	3,253.4	3,531.5

Totals may not add due to rounding.

a Includes multi-fuel fired power plants. This series was discontinued in 2013-14 and multi-fuel allocated to specific fuel types.

(e) estimate only, see method note

Table O9

State summary of electricity generation for 2018 calendar year, by fuel type, physical units

	NSW	VIC	QLD	WA	SA	TAS	NT	AUSTRALIA
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh
Non-renewable fuels								
Black coal	57,251.2		52,947.4	10,402.1				120,600.8
Brown coal		35,962.1						35,962.1
Natural gas	2,238.7	3,027.1	10,352.6	24,796.7	6,776.8	632.9	2,420.2	50,244.9
Oil products	411.5	164.8	999.5	2,540.9	139.8	33.0	969.0	5,258.6
Total non-renewable	59,901.4	39,154.0	64,299.5	37,739.7	6,916.6	665.9	3,389.2	212,066.3
Renewable fuels								
Biomass	1,166.1	666.8	1,437.8	147.9	89.1	24.6	7.1	3,539.3
Wind	3,122.0	4,580.0	142.8	1,615.3	5,704.0	1,102.4		16,266.5
Hydro	4,946.8	1,114.2	816.0	217.9	6.4	10,350.7		17,451.9
Large-scale solar PV	967.9	177.3	767.3	47.5	142.4	1.2	35.5	2,139.2
Small-scale solar PV	2,367.9	1,645.3	3,018.4	1,345.2	1,316.4	149.0	99.8	9,941.9
Geothermal								
Total renewable	12,570.7	8,183.6	6,182.3	3,373.8	7,258.3	11,627.8	142.4	49,338.8
Total	72,472.1	47,337.6	70,481.7	41,113.5	14,174.9	12,293.8	3,531.5	261,405.1
<i>Per cent renewable generation</i>	<i>17%</i>	<i>17%</i>	<i>9%</i>	<i>8%</i>	<i>51%</i>	<i>95%</i>	<i>4%</i>	<i>19%</i>

Totals may not add due to rounding

Table O10

State summary of electricity generation for 2017-18 fiscal year, by fuel type, physical units

	NSW	VIC	QLD	WA	SA	TAS	NT	Aus
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh
Non-renewable fuels								
Black coal	57,151.5		53,480.2	10,960.9				121,592.6
Brown coal		36,067.0						36,067.0
Natural gas	3,039.5	3,899.4	11,112.1	24,687.9	7,703.5	976.8	2,420.2	53,839.4
Oil products	415.5	164.8	1,001.9	2,540.9	137.5	33.0	969.0	5,262.6
Total non-renewable	60,606.5	40,131.2	65,594.2	38,189.7	7,841.0	1,009.8	3,389.2	216,761.6
Renewable fuels								
Biomass	1,164.4	661.8	1,434.1	153.0	89.1	24.6	7.1	3,534.1
Wind	2,448.7	4,224.2	28.5	1,593.0	5,572.9	1,122.2		14,989.4
Hydro	4,844.6	785.3	657.3	217.9	6.4	9,327.4		15,838.8
Large-scale solar PV	700.0	39.4	171.5	45.6	20.0	0.6	30.5	1,007.6
Small-scale solar PV	2,095.8	1,481.2	2,760.9	1,196.4	1,163.4	138.9	85.8	8,922.4
Geothermal								
Total renewable	11,253.5	7,191.9	5,052.1	3,205.9	6,851.7	10,613.7	123.4	44,292.3
Total	71,860.0	47,323.1	70,646.3	41,395.6	14,692.7	11,623.5	3,512.6	261,053.9
<i>Per cent renewable generation</i>	<i>16%</i>	<i>15%</i>	<i>7%</i>	<i>8%</i>	<i>47%</i>	<i>91%</i>	<i>4%</i>	<i>17%</i>

Totals may not add due to rounding

Table O11
Australian electricity supplied from utility-scale battery storage

	2017-18(e)	
	GWh	
NSW		
VIC		
QLD		
WA		
SA	22.0	
TAS	0	
NT	0	
Aus	22.0	

	Calendar year	
	2017	2018
	GWh	GWh
NSW		
VIC		2.7
QLD		
WA		
SA	2.6	40.1
TAS		
NT		
Aus	2.6	42.8

Totals may not add due to rounding.

Electricity that is stored and released from batteries is not included in the electricity generation estimates because generation is measured at the point of original generation (e) estimate only, see method note

Australian Energy Statistics, Table O

Method note:

Calendar year and 2017-18 estimates of electricity generation are based on data from the:

- Australian Energy Market Operator, which includes the National Electricity Market and the Western Australian Wholesale Electricity Market
- Clean Energy Regulator, which includes data collected under National Greenhouse and Energy Reporting Scheme and the Renewable Energy Target

These estimates are subject to change in the full release of the 2017-18 Australian Energy Statistics.

These statistics cover all electricity generation in Australia. This includes by power plants, and by businesses and households for their own use, in all states and territories. This also includes both on and off grid generation.