

Form 603
Corporations Act 2001
Section 671B

Notice of initial substantial holder

To Company Name/Scheme Macquarie Group Limited
ACN/ARSN 122 169 279

1. Details of substantial holder (1)

Name The Vanguard Group, Inc.
ACN/ARSN (if applicable) N/A

The holder became a substantial holder on 9 April 2019

2. Details of voting power

The total number of votes attached to all the voting shares in the company or voting interests in the scheme that the substantial holder or an associate (2) had a relevant interest (3) in on the date the substantial holder became a substantial holder are as follows:

Class of securities (4)	Number of securities	Person's votes (5)	Voting power (6)
Ordinary	17,041,769	17,041,769	5.007%

3. Details of relevant interests

The nature of the relevant interest the substantial holder or an associate had in the following voting securities on the date the substantial holder became a substantial holder are as follows:

Holder of relevant interest	Nature of relevant interest (7)	Class and number of securities
Vanguard Investments Australia Ltd.	Beneficial Owner	Ordinary – 8,353,089
The Vanguard Group, Inc.	Beneficial Owner	Ordinary – 8,688,680

4. Details of present registered holders

The persons registered as holders of the securities referred to in paragraph 3 above are as follows:

Holder of relevant interest	Registered holder of securities	Person entitled to be registered as holder (8)	Class and number of securities
Vanguard Investments Australia Ltd	JP Morgan Chase Bank, N.A. and various other Custodians	Vanguard Investments Australia Ltd is the manager of various superannuation funds, institutional investor portfolios and unit trusts and in that capacity can exercise the power to vote and/or dispose of the shares	Ordinary – 8,353,089
The Vanguard Group, Inc.	JP Morgan Chase Bank, N.A.	The Vanguard Group, Inc., is the manager of various Mutual funds and accounts and in that capacity has the power to dispose of the shares	Ordinary – 4,843,252
The Vanguard Group, Inc.	BNY Mellon	The Vanguard Group, Inc., is the manager of various Mutual funds and accounts and in that capacity has the power to dispose of the shares	Ordinary – 897,951
The Vanguard Group, Inc.	Citibank	The Vanguard Group, Inc., is the manager of various Mutual funds and accounts and in that capacity has the power to dispose of the shares	Ordinary – 3,838
The Vanguard Group, Inc.	Brown Brothers Harriman	The Vanguard Group, Inc., is the manager of various Mutual funds and accounts and in that capacity has the power to dispose of the shares	Ordinary – 769,125
The Vanguard Group, Inc.	State Street Bank and Trust Company	The Vanguard Group, Inc., is the manager of various Mutual funds and accounts and in that capacity has the power to dispose of the shares	Ordinary – 2,174,514

5. Consideration

The consideration paid for each relevant interest referred to in paragraph 3 above, and acquired in the four months prior to the day that the substantial holder became a substantial holder is as follows:

Holder of relevant interest	Date of acquisition	Consideration (9)	Class and number of securities
See Annexure A			

6. Associates

The reasons the persons named in paragraph 3 above are associates of the substantial holder are as follows:

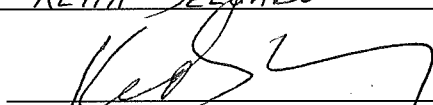
Name and ACN/ARSN (if applicable)	Nature of association
N/A	N/A

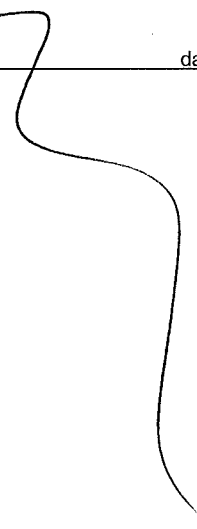
7. Addresses

The addresses of persons named in this form are as follows:

Name	Address
The Vanguard Group, Inc.	P.O. Box 2600, V26 Valley Forge, PA 19482 USA
Vanguard Investments Australia Ltd	Level 34, 2 Southbank Blvd, Southbank 3006 VIC Australia

print name KEITH DELGADO capacity MGR

sign here  date 12 April 2019



To Company Macquarie Group Limited
ACN/ARSN 122 169 279

Substantial Holder Name The Vanguard Group, Inc.
ACN/ARSN N/A

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
10-Dec-2018	The Vanguard Group, Inc.	BUY	109.89	Ordinary	1,731	1,731
10-Dec-2018	The Vanguard Group, Inc.	BUY	111.74	Ordinary	4,107	4,107
11-Dec-2018	The Vanguard Group, Inc.	BUY	110.61	Ordinary	7,862	7,862
11-Dec-2018	The Vanguard Group, Inc.	BUY	109.42	Ordinary	2,624	2,624
11-Dec-2018	The Vanguard Group, Inc.	BUY	109.42	Ordinary	1,968	1,968
12-Dec-2018	The Vanguard Group, Inc.	BUY	112.85	Ordinary	1,968	1,968
12-Dec-2018	The Vanguard Group, Inc.	BUY	112.85	Ordinary	1,968	1,968
12-Dec-2018	The Vanguard Group, Inc.	BUY	112.85	Ordinary	5,576	5,576
12-Dec-2018	The Vanguard Group, Inc.	SELL	109.86	Ordinary	(134)	(134)
12-Dec-2018	The Vanguard Group, Inc.	BUY	112.85	Ordinary	776	776
13-Dec-2018	The Vanguard Group, Inc.	BUY	113.56	Ordinary	1,358	1,358
13-Dec-2018	The Vanguard Group, Inc.	BUY	113.56	Ordinary	384	384
13-Dec-2018	The Vanguard Group, Inc.	BUY	114.00	Ordinary	117	117
13-Dec-2018	The Vanguard Group, Inc.	BUY	114.00	Ordinary	27	27
14-Dec-2018	The Vanguard Group, Inc.	BUY	112.46	Ordinary	1,968	1,968
14-Dec-2018	The Vanguard Group, Inc.	BUY	112.46	Ordinary	654	654
14-Dec-2018	The Vanguard Group, Inc.	BUY	112.46	Ordinary	582	582
14-Dec-2018	The Vanguard Group, Inc.	SELL	113.18	Ordinary	(217)	(217)
14-Dec-2018	The Vanguard Group, Inc.	BUY	113.18	Ordinary	372	372
17-Dec-2018	The Vanguard Group, Inc.	BUY	111.53	Ordinary	3,936	3,936
17-Dec-2018	The Vanguard Group, Inc.	BUY	111.53	Ordinary	1,940	1,940
17-Dec-2018	The Vanguard Group, Inc.	SELL	113.26	Ordinary	(1,921)	(1,921)
18-Dec-2018	The Vanguard Group, Inc.	BUY	111.08	Ordinary	15,476	15,476
18-Dec-2018	The Vanguard Group, Inc.	BUY	110.63	Ordinary	118	118
18-Dec-2018	The Vanguard Group, Inc.	BUY	111.08	Ordinary	435	435
19-Dec-2018	The Vanguard Group, Inc.	BUY	110.25	Ordinary	13,868	13,868
20-Dec-2018	The Vanguard Group, Inc.	BUY	106.29	Ordinary	2,624	2,624
20-Dec-2018	The Vanguard Group, Inc.	SELL	107.29	Ordinary	(1,268)	(1,268)
20-Dec-2018	The Vanguard Group, Inc.	SELL	107.29	Ordinary	(11,806)	(11,806)
20-Dec-2018	The Vanguard Group, Inc.	BUY	107.29	Ordinary	2,496	2,496
21-Dec-2018	The Vanguard Group, Inc.	SELL	104.82	Ordinary	(4,454)	(4,454)
21-Dec-2018	The Vanguard Group, Inc.	SELL	104.82	Ordinary	(197)	(197)
21-Dec-2018	The Vanguard Group, Inc.	SELL	104.82	Ordinary	(2,006)	(2,006)
21-Dec-2018	The Vanguard Group, Inc.	BUY	104.98	Ordinary	77	77
21-Dec-2018	The Vanguard Group, Inc.	SELL	104.82	Ordinary	(52)	(52)
21-Dec-2018	The Vanguard Group, Inc.	BUY	104.98	Ordinary	13	13
24-Dec-2018	The Vanguard Group, Inc.	BUY	103.64	Ordinary	2,896	2,896
24-Dec-2018	The Vanguard Group, Inc.	BUY	103.64	Ordinary	1,810	1,810
26-Dec-2018	The Vanguard Group, Inc.	BUY	107.74	Ordinary	1,781	1,781
26-Dec-2018	The Vanguard Group, Inc.	BUY	107.74	Ordinary	1,086	1,086
27-Dec-2018	The Vanguard Group, Inc.	BUY	107.13	Ordinary	215	215
27-Dec-2018	The Vanguard Group, Inc.	BUY	107.13	Ordinary	2,715	2,715
27-Dec-2018	The Vanguard Group, Inc.	BUY	107.13	Ordinary	905	905
27-Dec-2018	The Vanguard Group, Inc.	BUY	107.13	Ordinary	543	543
27-Dec-2018	The Vanguard Group, Inc.	BUY	107.13	Ordinary	162	162
28-Dec-2018	The Vanguard Group, Inc.	BUY	108.19	Ordinary	685	685
28-Dec-2018	The Vanguard Group, Inc.	BUY	106.00	Ordinary	2,927	2,927
28-Dec-2018	The Vanguard Group, Inc.	BUY	106.00	Ordinary	54	54
31-Dec-2018	The Vanguard Group, Inc.	BUY	108.75	Ordinary	1,032	1,032
2-Jan-2019	The Vanguard Group, Inc.	BUY	108.14	Ordinary	301	301
2-Jan-2019	The Vanguard Group, Inc.	BUY	108.14	Ordinary	774	774
2-Jan-2019	The Vanguard Group, Inc.	BUY	108.14	Ordinary	959	959
2-Jan-2019	The Vanguard Group, Inc.	BUY	108.14	Ordinary	1,781	1,781
2-Jan-2019	The Vanguard Group, Inc.	BUY	108.19	Ordinary	379	379
2-Jan-2019	The Vanguard Group, Inc.	BUY	108.14	Ordinary	1,086	1,086
2-Jan-2019	The Vanguard Group, Inc.	BUY	108.14	Ordinary	1,267	1,267
2-Jan-2019	The Vanguard Group, Inc.	BUY	108.14	Ordinary	376	376
2-Jan-2019	The Vanguard Group, Inc.	BUY	106.85	Ordinary	2,085	2,085
3-Jan-2019	The Vanguard Group, Inc.	BUY	107.62	Ordinary	6,902	6,902
3-Jan-2019	The Vanguard Group, Inc.	BUY	108.64	Ordinary	905	905
3-Jan-2019	The Vanguard Group, Inc.	BUY	108.64	Ordinary	376	376
3-Jan-2019	The Vanguard Group, Inc.	BUY	107.62	Ordinary	454	454

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3-Jan-2019	The Vanguard Group, Inc.	BUY	107.62	Ordinary	503	503
4-Jan-2019	The Vanguard Group, Inc.	BUY	108.63	Ordinary	4,143	4,143
4-Jan-2019	The Vanguard Group, Inc.	BUY	109.41	Ordinary	233	233
7-Jan-2019	The Vanguard Group, Inc.	BUY	110.95	Ordinary	362	362
8-Jan-2019	The Vanguard Group, Inc.	SELL	110.55	Ordinary	(161)	(161)
8-Jan-2019	The Vanguard Group, Inc.	BUY	112.90	Ordinary	405	405
8-Jan-2019	The Vanguard Group, Inc.	SELL	112.05	Ordinary	(6,999)	(6,999)
8-Jan-2019	The Vanguard Group, Inc.	BUY	112.67	Ordinary	1,036	1,036
8-Jan-2019	The Vanguard Group, Inc.	BUY	112.67	Ordinary	327	327
9-Jan-2019	The Vanguard Group, Inc.	BUY	113.94	Ordinary	959	959
9-Jan-2019	The Vanguard Group, Inc.	SELL	113.70	Ordinary	(3,889)	(3,889)
10-Jan-2019	The Vanguard Group, Inc.	BUY	114.76	Ordinary	688	688
10-Jan-2019	The Vanguard Group, Inc.	BUY	114.76	Ordinary	752	752
10-Jan-2019	The Vanguard Group, Inc.	SELL	113.61	Ordinary	(3,274)	(3,274)
10-Jan-2019	The Vanguard Group, Inc.	BUY	113.95	Ordinary	1,665	1,665
11-Jan-2019	The Vanguard Group, Inc.	BUY	113.63	Ordinary	258	258
11-Jan-2019	The Vanguard Group, Inc.	BUY	113.63	Ordinary	1,644	1,644
11-Jan-2019	The Vanguard Group, Inc.	BUY	113.63	Ordinary	162	162
14-Jan-2019	The Vanguard Group, Inc.	BUY	113.44	Ordinary	959	959
15-Jan-2019	The Vanguard Group, Inc.	SELL	114.98	Ordinary	(1,975)	(1,975)
15-Jan-2019	The Vanguard Group, Inc.	BUY	114.50	Ordinary	2,558	2,558
16-Jan-2019	The Vanguard Group, Inc.	BUY	115.21	Ordinary	820	820
17-Jan-2019	The Vanguard Group, Inc.	BUY	118.35	Ordinary	3,925	3,925
17-Jan-2019	The Vanguard Group, Inc.	SELL	118.03	Ordinary	(1,926)	(1,926)
17-Jan-2019	The Vanguard Group, Inc.	BUY	117.18	Ordinary	270	270
17-Jan-2019	The Vanguard Group, Inc.	SELL	117.18	Ordinary	(2,536)	(2,536)
18-Jan-2019	The Vanguard Group, Inc.	BUY	117.90	Ordinary	13,819	13,819
18-Jan-2019	The Vanguard Group, Inc.	SELL	117.85	Ordinary	(137)	(137)
18-Jan-2019	The Vanguard Group, Inc.	SELL	118.20	Ordinary	(785)	(785)
22-Jan-2019	The Vanguard Group, Inc.	SELL	115.75	Ordinary	(1,926)	(1,926)
22-Jan-2019	The Vanguard Group, Inc.	BUY	116.31	Ordinary	72	72
23-Jan-2019	The Vanguard Group, Inc.	SELL	116.21	Ordinary	(4,173)	(4,173)
23-Jan-2019	The Vanguard Group, Inc.	BUY	116.29	Ordinary	329	329
24-Jan-2019	The Vanguard Group, Inc.	SELL	118.17	Ordinary	(4,173)	(4,173)
24-Jan-2019	The Vanguard Group, Inc.	BUY	117.90	Ordinary	4,710	4,710
25-Jan-2019	The Vanguard Group, Inc.	BUY	117.69	Ordinary	174	174
28-Jan-2019	The Vanguard Group, Inc.	SELL	117.10	Ordinary	(1,086)	(1,086)
29-Jan-2019	The Vanguard Group, Inc.	SELL	116.62	Ordinary	(6,099)	(6,099)
29-Jan-2019	The Vanguard Group, Inc.	SELL	116.62	Ordinary	(2,568)	(2,568)
29-Jan-2019	The Vanguard Group, Inc.	SELL	116.62	Ordinary	(2,568)	(2,568)
29-Jan-2019	The Vanguard Group, Inc.	SELL	116.62	Ordinary	(822)	(822)
29-Jan-2019	The Vanguard Group, Inc.	SELL	118.02	Ordinary	(116)	(116)
29-Jan-2019	The Vanguard Group, Inc.	SELL	116.62	Ordinary	(724)	(724)
29-Jan-2019	The Vanguard Group, Inc.	BUY	116.45	Ordinary	242	242
30-Jan-2019	The Vanguard Group, Inc.	BUY	117.70	Ordinary	301	301
30-Jan-2019	The Vanguard Group, Inc.	SELL	117.70	Ordinary	(1,086)	(1,086)
30-Jan-2019	The Vanguard Group, Inc.	SELL	116.76	Ordinary	(2,553)	(2,553)
30-Jan-2019	The Vanguard Group, Inc.	BUY	116.76	Ordinary	8,923	8,923
30-Jan-2019	The Vanguard Group, Inc.	BUY	116.93	Ordinary	105	105
31-Jan-2019	The Vanguard Group, Inc.	SELL	117.00	Ordinary	(685)	(685)
31-Jan-2019	The Vanguard Group, Inc.	SELL	117.00	Ordinary	(3,077)	(3,077)
31-Jan-2019	The Vanguard Group, Inc.	BUY	116.48	Ordinary	173	173
31-Jan-2019	The Vanguard Group, Inc.	BUY	116.48	Ordinary	175	175
1-Feb-2019	The Vanguard Group, Inc.	BUY	116.00	Ordinary	50	50
4-Feb-2019	The Vanguard Group, Inc.	SELL	117.33	Ordinary	(959)	(959)
4-Feb-2019	The Vanguard Group, Inc.	SELL	117.33	Ordinary	(1,096)	(1,096)
5-Feb-2019	The Vanguard Group, Inc.	BUY	119.08	Ordinary	473	473
5-Feb-2019	The Vanguard Group, Inc.	SELL	119.08	Ordinary	(959)	(959)
7-Feb-2019	The Vanguard Group, Inc.	SELL	122.49	Ordinary	(2,256)	(2,256)
7-Feb-2019	The Vanguard Group, Inc.	BUY	122.49	Ordinary	860	860
7-Feb-2019	The Vanguard Group, Inc.	SELL	122.49	Ordinary	(1,096)	(1,096)
7-Feb-2019	The Vanguard Group, Inc.	SELL	122.49	Ordinary	(724)	(724)
7-Feb-2019	The Vanguard Group, Inc.	SELL	122.49	Ordinary	(724)	(724)
8-Feb-2019	The Vanguard Group, Inc.	BUY	122.56	Ordinary	6,697	6,697
8-Feb-2019	The Vanguard Group, Inc.	SELL	121.91	Ordinary	(2,353)	(2,353)
8-Feb-2019	The Vanguard Group, Inc.	BUY	122.56	Ordinary	1,139	1,139
8-Feb-2019	The Vanguard Group, Inc.	BUY	121.57	Ordinary	4,081	4,081
11-Feb-2019	The Vanguard Group, Inc.	SELL	122.20	Ordinary	(1,629)	(1,629)
11-Feb-2019	The Vanguard Group, Inc.	BUY	121.98	Ordinary	6,452	6,452

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
12-Feb-2019	The Vanguard Group, Inc.	SELL	124.60	Ordinary	(16,811)	(16,811)
13-Feb-2019	The Vanguard Group, Inc.	BUY	126.29	Ordinary	3,339	3,339
13-Feb-2019	The Vanguard Group, Inc.	SELL	126.25	Ordinary	(1,086)	(1,086)
15-Feb-2019	The Vanguard Group, Inc.	BUY	124.48	Ordinary	11,284	11,284
15-Feb-2019	The Vanguard Group, Inc.	SELL	124.97	Ordinary	(274)	(274)
15-Feb-2019	The Vanguard Group, Inc.	SELL	125.08	Ordinary	(101)	(101)
18-Feb-2019	The Vanguard Group, Inc.	BUY	124.80	Ordinary	1,145	1,145
20-Feb-2019	The Vanguard Group, Inc.	SELL	126.00	Ordinary	(1,744)	(1,744)
20-Feb-2019	The Vanguard Group, Inc.	BUY	126.00	Ordinary	5,533	5,533
20-Feb-2019	The Vanguard Group, Inc.	BUY	126.00	Ordinary	169	169
20-Feb-2019	The Vanguard Group, Inc.	SELL	126.15	Ordinary	(204)	(204)
21-Feb-2019	The Vanguard Group, Inc.	BUY	126.48	Ordinary	8,406	8,406
21-Feb-2019	The Vanguard Group, Inc.	SELL	127.92	Ordinary	(959)	(959)
21-Feb-2019	The Vanguard Group, Inc.	SELL	127.92	Ordinary	(905)	(905)
21-Feb-2019	The Vanguard Group, Inc.	BUY	127.97	Ordinary	241	241
22-Feb-2019	The Vanguard Group, Inc.	SELL	127.86	Ordinary	(3,973)	(3,973)
26-Feb-2019	The Vanguard Group, Inc.	BUY	128.03	Ordinary	6,086	6,086
26-Feb-2019	The Vanguard Group, Inc.	BUY	127.27	Ordinary	1,605	1,605
26-Feb-2019	The Vanguard Group, Inc.	BUY	127.25	Ordinary	118	118
27-Feb-2019	The Vanguard Group, Inc.	BUY	127.80	Ordinary	376	376
27-Feb-2019	The Vanguard Group, Inc.	BUY	127.43	Ordinary	173	173
28-Feb-2019	The Vanguard Group, Inc.	SELL	127.01	Ordinary	(1,093)	(1,093)
28-Feb-2019	The Vanguard Group, Inc.	SELL	128.64	Ordinary	(6,537)	(6,537)
28-Feb-2019	The Vanguard Group, Inc.	SELL	128.63	Ordinary	(457)	(457)
1-Mar-2019	The Vanguard Group, Inc.	BUY	128.98	Ordinary	17,013	17,013
1-Mar-2019	The Vanguard Group, Inc.	BUY	129.23	Ordinary	1,758	1,758
1-Mar-2019	The Vanguard Group, Inc.	SELL	129.23	Ordinary	(6,408)	(6,408)
1-Mar-2019	The Vanguard Group, Inc.	SELL	129.23	Ordinary	(2,401)	(2,401)
1-Mar-2019	The Vanguard Group, Inc.	SELL	129.23	Ordinary	(803)	(803)
1-Mar-2019	The Vanguard Group, Inc.	BUY	129.23	Ordinary	199	199
4-Mar-2019	The Vanguard Group, Inc.	BUY	129.90	Ordinary	2,220	2,220
4-Mar-2019	The Vanguard Group, Inc.	SELL	129.90	Ordinary	(6,293)	(6,293)
4-Mar-2019	The Vanguard Group, Inc.	SELL	129.90	Ordinary	(743)	(743)
5-Mar-2019	The Vanguard Group, Inc.	BUY	128.35	Ordinary	12,238	12,238
5-Mar-2019	The Vanguard Group, Inc.	BUY	128.08	Ordinary	352	352
5-Mar-2019	The Vanguard Group, Inc.	BUY	128.58	Ordinary	1,926	1,926
5-Mar-2019	The Vanguard Group, Inc.	SELL	128.55	Ordinary	(1,569)	(1,569)
5-Mar-2019	The Vanguard Group, Inc.	BUY	128.55	Ordinary	47	47
6-Mar-2019	The Vanguard Group, Inc.	BUY	129.22	Ordinary	959	959
6-Mar-2019	The Vanguard Group, Inc.	BUY	129.22	Ordinary	174	174
6-Mar-2019	The Vanguard Group, Inc.	BUY	128.27	Ordinary	1,402	1,402
6-Mar-2019	The Vanguard Group, Inc.	BUY	129.64	Ordinary	128	128
8-Mar-2019	The Vanguard Group, Inc.	BUY	128.28	Ordinary	1,605	1,605
8-Mar-2019	The Vanguard Group, Inc.	BUY	128.74	Ordinary	132	132
8-Mar-2019	The Vanguard Group, Inc.	BUY	128.50	Ordinary	168	168
11-Mar-2019	The Vanguard Group, Inc.	BUY	125.96	Ordinary	173	173
12-Mar-2019	The Vanguard Group, Inc.	SELL	125.74	Ordinary	(1,143)	(1,143)
14-Mar-2019	The Vanguard Group, Inc.	BUY	126.27	Ordinary	19,098	19,098
14-Mar-2019	The Vanguard Group, Inc.	SELL	126.73	Ordinary	(3,147)	(3,147)
15-Mar-2019	The Vanguard Group, Inc.	BUY	127.78	Ordinary	475	475
15-Mar-2019	The Vanguard Group, Inc.	BUY	127.75	Ordinary	53	53
15-Mar-2019	The Vanguard Group, Inc.	SELL	127.92	Ordinary	(7)	(7)
15-Mar-2019	The Vanguard Group, Inc.	SELL	127.74	Ordinary	(605)	(605)
15-Mar-2019	The Vanguard Group, Inc.	SELL	127.92	Ordinary	(5)	(5)
15-Mar-2019	The Vanguard Group, Inc.	SELL	127.74	Ordinary	(470)	(470)
15-Mar-2019	The Vanguard Group, Inc.	BUY	127.78	Ordinary	19	19
15-Mar-2019	The Vanguard Group, Inc.	BUY	127.75	Ordinary	3	3
18-Mar-2019	The Vanguard Group, Inc.	BUY	128.96	Ordinary	602	602
19-Mar-2019	The Vanguard Group, Inc.	BUY	129.10	Ordinary	2,280	2,280
19-Mar-2019	The Vanguard Group, Inc.	BUY	129.10	Ordinary	82	82
20-Mar-2019	The Vanguard Group, Inc.	BUY	128.56	Ordinary	963	963
21-Mar-2019	The Vanguard Group, Inc.	BUY	126.61	Ordinary	132	132
21-Mar-2019	The Vanguard Group, Inc.	BUY	126.83	Ordinary	204	204
25-Mar-2019	The Vanguard Group, Inc.	SELL	125.48	Ordinary	(675)	(675)
25-Mar-2019	The Vanguard Group, Inc.	SELL	125.48	Ordinary	(3,113)	(3,113)
26-Mar-2019	The Vanguard Group, Inc.	BUY	125.50	Ordinary	5,580	5,580
27-Mar-2019	The Vanguard Group, Inc.	BUY	125.37	Ordinary	10,454	10,454
27-Mar-2019	The Vanguard Group, Inc.	SELL	125.03	Ordinary	(180)	(180)
27-Mar-2019	The Vanguard Group, Inc.	BUY	126.20	Ordinary	380	380

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
27-Mar-2019	The Vanguard Group, Inc.	SELL	126.58	Ordinary	(127)	(127)
28-Mar-2019	The Vanguard Group, Inc.	SELL	128.90	Ordinary	(952)	(952)
29-Mar-2019	The Vanguard Group, Inc.	BUY	129.42	Ordinary	5,535	5,535
29-Mar-2019	The Vanguard Group, Inc.	SELL	129.70	Ordinary	(685)	(685)
29-Mar-2019	The Vanguard Group, Inc.	BUY	129.42	Ordinary	130	130
29-Mar-2019	The Vanguard Group, Inc.	SELL	129.42	Ordinary	(4,368)	(4,368)
29-Mar-2019	The Vanguard Group, Inc.	BUY	128.97	Ordinary	510	510
1-Apr-2019	The Vanguard Group, Inc.	BUY	131.21	Ordinary	1,284	1,284
1-Apr-2019	The Vanguard Group, Inc.	BUY	131.21	Ordinary	380	380
1-Apr-2019	The Vanguard Group, Inc.	BUY	129.90	Ordinary	521	521
1-Apr-2019	The Vanguard Group, Inc.	BUY	130.62	Ordinary	113	113
2-Apr-2019	The Vanguard Group, Inc.	BUY	132.09	Ordinary	12,272	12,272
3-Apr-2019	The Vanguard Group, Inc.	BUY	132.72	Ordinary	5,341	5,341
4-Apr-2019	The Vanguard Group, Inc.	BUY	132.09	Ordinary	4,833	4,833
4-Apr-2019	The Vanguard Group, Inc.	BUY	131.75	Ordinary	613	613
4-Apr-2019	The Vanguard Group, Inc.	SELL	131.75	Ordinary	(2,470)	(2,470)
4-Apr-2019	The Vanguard Group, Inc.	BUY	131.75	Ordinary	267	267
5-Apr-2019	The Vanguard Group, Inc.	BUY	131.22	Ordinary	860	860
5-Apr-2019	The Vanguard Group, Inc.	BUY	131.22	Ordinary	380	380
5-Apr-2019	The Vanguard Group, Inc.	BUY	131.02	Ordinary	102	102
8-Apr-2019	The Vanguard Group, Inc.	SELL	130.95	Ordinary	(1,644)	(1,644)
8-Apr-2019	The Vanguard Group, Inc.	BUY	130.95	Ordinary	380	380
9-Apr-2019	The Vanguard Group, Inc.	BUY	130.30	Ordinary	10,883	10,883
9-Apr-2019	The Vanguard Group, Inc.	SELL	130.39	Ordinary	(1,918)	(1,918)
10-Dec-2018	Vanguard Investments Australia Ltd	BUY	109.89	Ordinary	1,216	1,216
11-Dec-2018	Vanguard Investments Australia Ltd	BUY	109.77	Ordinary	912	912
11-Dec-2018	Vanguard Investments Australia Ltd	BUY	109.77	Ordinary	6,000	6,000
11-Dec-2018	Vanguard Investments Australia Ltd	BUY	109.77	Ordinary	3,600	3,600
12-Dec-2018	Vanguard Investments Australia Ltd	BUY	113.17	Ordinary	225,783	225,783
14-Dec-2018	Vanguard Investments Australia Ltd	SELL	113.18	Ordinary	(1,800)	(1,800)
18-Dec-2018	Vanguard Investments Australia Ltd	BUY	110.63	Ordinary	1,216	1,216
20-Dec-2018	Vanguard Investments Australia Ltd	SELL	107.29	Ordinary	(1,548)	(1,548)
20-Dec-2018	Vanguard Investments Australia Ltd	BUY	107.29	Ordinary	254	254
21-Dec-2018	Vanguard Investments Australia Ltd	SELL	104.76	Ordinary	(1,344)	(1,344)
21-Dec-2018	Vanguard Investments Australia Ltd	BUY	104.98	Ordinary	14,122	14,122
21-Dec-2018	Vanguard Investments Australia Ltd	BUY	104.98	Ordinary	2,321	2,321
21-Dec-2018	Vanguard Investments Australia Ltd	BUY	104.82	Ordinary	547	547
21-Dec-2018	Vanguard Investments Australia Ltd	BUY	104.98	Ordinary	1,215	1,215
21-Dec-2018	Vanguard Investments Australia Ltd	BUY	104.98	Ordinary	3,505	3,505
21-Dec-2018	Vanguard Investments Australia Ltd	BUY	104.98	Ordinary	8,963	8,963
21-Dec-2018	Vanguard Investments Australia Ltd	BUY	104.98	Ordinary	6,538	6,538
21-Dec-2018	Vanguard Investments Australia Ltd	BUY	104.98	Ordinary	15,909	15,909
21-Dec-2018	Vanguard Investments Australia Ltd	BUY	104.82	Ordinary	912	912
21-Dec-2018	Vanguard Investments Australia Ltd	BUY	104.99	Ordinary	40,060	40,060
21-Dec-2018	Vanguard Investments Australia Ltd	BUY	104.98	Ordinary	26,574	26,574
24-Dec-2018	Vanguard Investments Australia Ltd	SELL	103.84	Ordinary	(1,935)	(1,935)
27-Dec-2018	Vanguard Investments Australia Ltd	BUY	106.04	Ordinary	1,788	1,788
31-Dec-2018	Vanguard Investments Australia Ltd	BUY	108.68	Ordinary	2,953	2,953
31-Dec-2018	Vanguard Investments Australia Ltd	SELL	108.67	Ordinary	(190)	(190)
31-Dec-2018	Vanguard Investments Australia Ltd	SELL	108.67	Ordinary	(4,014)	(4,014)
2-Jan-2019	Vanguard Investments Australia Ltd	SELL	106.85	Ordinary	(1,192)	(1,192)
3-Jan-2019	Vanguard Investments Australia Ltd	BUY	109.82	Ordinary	3,225	3,225
4-Jan-2019	Vanguard Investments Australia Ltd	BUY	108.04	Ordinary	981	981
8-Jan-2019	Vanguard Investments Australia Ltd	BUY	112.67	Ordinary	2,940	2,940
10-Jan-2019	Vanguard Investments Australia Ltd	BUY	113.95	Ordinary	103	103
11-Jan-2019	Vanguard Investments Australia Ltd	BUY	113.21	Ordinary	3,540	3,540
11-Jan-2019	Vanguard Investments Australia Ltd	BUY	113.36	Ordinary	4,724	4,724
18-Jan-2019	Vanguard Investments Australia Ltd	BUY	117.97	Ordinary	412	412
18-Jan-2019	Vanguard Investments Australia Ltd	BUY	118.19	Ordinary	1,092	1,092
18-Jan-2019	Vanguard Investments Australia Ltd	BUY	118.19	Ordinary	4,700	4,700
21-Jan-2019	Vanguard Investments Australia Ltd	SELL	117.68	Ordinary	(3,061)	(3,061)
21-Jan-2019	Vanguard Investments Australia Ltd	BUY	117.68	Ordinary	972	972
22-Jan-2019	Vanguard Investments Australia Ltd	SELL	115.83	Ordinary	(1,159)	(1,159)
29-Jan-2019	Vanguard Investments Australia Ltd	SELL	116.45	Ordinary	(1,409)	(1,409)
29-Jan-2019	Vanguard Investments Australia Ltd	BUY	116.52	Ordinary	5,228	5,228
30-Jan-2019	Vanguard Investments Australia Ltd	BUY	116.76	Ordinary	1,180	1,180
30-Jan-2019	Vanguard Investments Australia Ltd	BUY	116.62	Ordinary	6,406	6,406
1-Feb-2019	Vanguard Investments Australia Ltd	SELL	116.65	Ordinary	(1,455)	(1,455)
1-Feb-2019	Vanguard Investments Australia Ltd	BUY	116.41	Ordinary	8,271	8,271

Annexure A

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
4-Feb-2019	Vanguard Investments Australia Ltd	BUY	116.70	Ordinary	4,582	4,582
5-Feb-2019	Vanguard Investments Australia Ltd	SELL	118.48	Ordinary	(2,107)	(2,107)
5-Feb-2019	Vanguard Investments Australia Ltd	SELL	118.48	Ordinary	(20,580)	(20,580)
12-Feb-2019	Vanguard Investments Australia Ltd	SELL	124.60	Ordinary	(3,548)	(3,548)
12-Feb-2019	Vanguard Investments Australia Ltd	SELL	124.60	Ordinary	(1,248)	(1,248)
13-Feb-2019	Vanguard Investments Australia Ltd	BUY	126.29	Ordinary	12,291	12,291
15-Feb-2019	Vanguard Investments Australia Ltd	SELL	124.22	Ordinary	(802)	(802)
15-Feb-2019	Vanguard Investments Australia Ltd	SELL	124.22	Ordinary	(265)	(265)
19-Feb-2019	Vanguard Investments Australia Ltd	BUY	126.16	Ordinary	3,245	3,245
20-Feb-2019	Vanguard Investments Australia Ltd	SELL	126.00	Ordinary	(2,140)	(2,140)
22-Feb-2019	Vanguard Investments Australia Ltd	BUY	127.64	Ordinary	1,924	1,924
25-Feb-2019	Vanguard Investments Australia Ltd	BUY	128.59	Ordinary	9,338	9,338
26-Feb-2019	Vanguard Investments Australia Ltd	SELL	127.01	Ordinary	(8,645)	(8,645)
26-Feb-2019	Vanguard Investments Australia Ltd	BUY	127.25	Ordinary	4,967	4,967
26-Feb-2019	Vanguard Investments Australia Ltd	BUY	127.25	Ordinary	2,990	2,990
28-Feb-2019	Vanguard Investments Australia Ltd	BUY	128.64	Ordinary	309	309
28-Feb-2019	Vanguard Investments Australia Ltd	BUY	128.64	Ordinary	114	114
5-Mar-2019	Vanguard Investments Australia Ltd	BUY	128.55	Ordinary	19,136	19,136
6-Mar-2019	Vanguard Investments Australia Ltd	BUY	129.57	Ordinary	105	105
11-Mar-2019	Vanguard Investments Australia Ltd	SELL	125.59	Ordinary	(593)	(593)
12-Mar-2019	Vanguard Investments Australia Ltd	SELL	125.74	Ordinary	(2,649)	(2,649)
15-Mar-2019	Vanguard Investments Australia Ltd	BUY	127.75	Ordinary	141	141
15-Mar-2019	Vanguard Investments Australia Ltd	BUY	127.78	Ordinary	1,296	1,296
15-Mar-2019	Vanguard Investments Australia Ltd	BUY	127.75	Ordinary	887	887
15-Mar-2019	Vanguard Investments Australia Ltd	BUY	127.78	Ordinary	8,066	8,066
15-Mar-2019	Vanguard Investments Australia Ltd	BUY	127.75	Ordinary	123	123
15-Mar-2019	Vanguard Investments Australia Ltd	BUY	127.78	Ordinary	1,119	1,119
15-Mar-2019	Vanguard Investments Australia Ltd	SELL	127.74	Ordinary	(1,843)	(1,843)
15-Mar-2019	Vanguard Investments Australia Ltd	SELL	127.92	Ordinary	(20)	(20)
15-Mar-2019	Vanguard Investments Australia Ltd	SELL	127.74	Ordinary	(1,967)	(1,967)
15-Mar-2019	Vanguard Investments Australia Ltd	BUY	127.75	Ordinary	349	349
15-Mar-2019	Vanguard Investments Australia Ltd	BUY	127.78	Ordinary	3,156	3,156
15-Mar-2019	Vanguard Investments Australia Ltd	BUY	127.75	Ordinary	656	656
15-Mar-2019	Vanguard Investments Australia Ltd	BUY	127.78	Ordinary	5,967	5,967
15-Mar-2019	Vanguard Investments Australia Ltd	BUY	127.75	Ordinary	474	474
15-Mar-2019	Vanguard Investments Australia Ltd	BUY	127.78	Ordinary	4,293	4,293
15-Mar-2019	Vanguard Investments Australia Ltd	BUY	127.75	Ordinary	411	411
15-Mar-2019	Vanguard Investments Australia Ltd	BUY	127.78	Ordinary	3,733	3,733
19-Mar-2019	Vanguard Investments Australia Ltd	SELL	129.10	Ordinary	(1,075)	(1,075)
21-Mar-2019	Vanguard Investments Australia Ltd	SELL	126.83	Ordinary	(2,939)	(2,939)
21-Mar-2019	Vanguard Investments Australia Ltd	BUY	126.83	Ordinary	2,803	2,803
22-Mar-2019	Vanguard Investments Australia Ltd	BUY	126.97	Ordinary	5,259	5,259
29-Mar-2019	Vanguard Investments Australia Ltd	SELL	129.42	Ordinary	(199)	(199)
29-Mar-2019	Vanguard Investments Australia Ltd	SELL	129.42	Ordinary	(5,359)	(5,359)
1-Apr-2019	Vanguard Investments Australia Ltd	BUY	130.62	Ordinary	278	278
1-Apr-2019	Vanguard Investments Australia Ltd	BUY	130.62	Ordinary	9,696	9,696
1-Apr-2019	Vanguard Investments Australia Ltd	BUY	130.62	Ordinary	1,058	1,058
1-Apr-2019	Vanguard Investments Australia Ltd	SELL	130.62	Ordinary	(14,985)	(14,985)
1-Apr-2019	Vanguard Investments Australia Ltd	SELL	130.62	Ordinary	(377)	(377)
1-Apr-2019	Vanguard Investments Australia Ltd	BUY	130.62	Ordinary	9,950	9,950
2-Apr-2019	Vanguard Investments Australia Ltd	BUY	132.94	Ordinary	874	874
2-Apr-2019	Vanguard Investments Australia Ltd	BUY	132.94	Ordinary	1,911	1,911
2-Apr-2019	Vanguard Investments Australia Ltd	BUY	132.94	Ordinary	4,078	4,078
2-Apr-2019	Vanguard Investments Australia Ltd	BUY	132.94	Ordinary	8,696	8,696
2-Apr-2019	Vanguard Investments Australia Ltd	BUY	131.50	Ordinary	1,635	1,635
2-Apr-2019	Vanguard Investments Australia Ltd	BUY	131.50	Ordinary	2,044	2,044
3-Apr-2019	Vanguard Investments Australia Ltd	SELL	132.80	Ordinary	(282)	(282)
5-Apr-2019	Vanguard Investments Australia Ltd	BUY	131.34	Ordinary	3,078	3,078
5-Apr-2019	Vanguard Investments Australia Ltd	SELL	130.70	Ordinary	(1,508)	(1,508)
8-Apr-2019	Vanguard Investments Australia Ltd	BUY	130.83	Ordinary	2,344	2,344
8-Apr-2019	Vanguard Investments Australia Ltd	BUY	130.83	Ordinary	87	87
9-Apr-2019	Vanguard Investments Australia Ltd	SELL	130.39	Ordinary	(641)	(641)
9-Apr-2019	Vanguard Investments Australia Ltd	BUY	130.39	Ordinary	94,395	94,395

This is Annexure A of 5 pages referred to in Form 603, Notice of initial substantial holder.

Signature

Date 12-Apr-19