

Form 603
Corporations Act 2001
Section 671B

Notice of initial substantial holder

To Company Name/Scheme APA Group

ACN/ARSN 091 344 704

1. Details of substantial holder (1)

Name Vanguard Group (The Vanguard Group, Inc. and its controlled entities including those listed in Annexure A)

ACN/ARSN (if applicable) N/A

The holder became a substantial holder on 07 December 2021

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	59,052,823	59,052,823	5.005%

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 Group	Vanguard Group is the manager of various Mutual funds and accounts and in that capacity has the power to dispose of the shares. The other members of Vanguard Group have a relevant interest under section 608(3) of the Corporations Act.	Ordinary – 59,052,823

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 Group	Brown Brothers Harriman	Various funds and other accounts of Vanguard Group	Ordinary – 3,626,962
Vanguard Group	BNY Mellon	Various funds and other accounts of Vanguard Group	Ordinary – 4,130,331
Vanguard Group	JP Morgan Chase Bank, N.A.	Various funds and other accounts of Vanguard Group	Ordinary – 42,083,933
Vanguard Group	State Street Bank and Trust Company	Various funds and other accounts of Vanguard Group	Ordinary – 9,211,597

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
Vanguard Group	P.O. Box 2600, V26 Valley Forge, PA 19482 USA

print name Shawn Acker capacity Compliance Manager

sign here  date 09 December 2021

DIRECTIONS

- (1) If there are a number of substantial holders with similar or related interests (eg. a corporation and its related corporations, or the manager and trustee of an equity trust), the names could be included in an annexure to the form. If the relevant interests of a group of persons are essentially similar, they may be referred to throughout the form as a specifically named group if the membership of each group, with the names and addresses of members is clearly set out in paragraph 7 of the form.
 - (2) See the definition of "associate" in section 9 of the Corporations Act 2001.
 - (3) See the definition of "relevant interest" in sections 608 and 671B(7) of the Corporations Act 2001.
 - (4) The voting shares of a company constitute one class unless divided into separate classes.
 - (5) The total number of votes attached to all the voting shares in the company or voting interests in the scheme (if any) that the person or an Associate has a relevant interest in.
 - (6) The person's votes divided by the total votes in the body corporate or scheme multiplied by 100.
 - (7) Include details of:
 - (a) any relevant agreement or other circumstances by which the relevant interest was acquired. If subsection 671B(4) applies, a copy of any document setting out the terms of any relevant agreement, and a statement by the person giving full and accurate details of any contract, scheme or arrangement, must accompany this form, together with a written statement certifying this contract, scheme or arrangement; and
 - (b) any qualification of the power of a person to exercise, control the exercise of, or influence the exercise of, the voting powers or disposal of the securities to which the relevant interest relates (indicating clearly the particular securities to which the qualification applies).
- See the definition of "relevant agreement" in section 9 of the Corporations Act 2001.
- (8) If the substantial holder is unable to determine the identity of the person (eg. if the relevant interest arises because of an option) write "unknown".
 - (9) Details of the consideration must include any and all benefits, moneys and other, that any person from whom a relevant interest has acquired has, or may, become entitled to receive in relation to that acquisition. Details must be included even if the benefit is conditional on the happening or not of a contingency. Details must be included of any benefit paid on behalf of the substantial holder or its associate in relation to the acquisitions, even if they are not paid directly to the person from whom the relevant interest was acquired.

To Company	APA Group
ACN/ARSN	091 344 704
Substantial Holder Name	Vanguard Group
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
6-Aug-21	The Vanguard Group, Inc.	SELL	9.64	Ordinary	(4,438)	(4,438)
9-Aug-21	The Vanguard Group, Inc.	BUY	9.69	Ordinary	6,160	6,160
10-Aug-21	The Vanguard Group, Inc.	BUY	9.75	Ordinary	28,212	28,212
11-Aug-21	The Vanguard Group, Inc.	BUY	9.85	Ordinary	2,142	2,142
11-Aug-21	The Vanguard Group, Inc.	BUY	9.85	Ordinary	1,262	1,262
11-Aug-21	The Vanguard Group, Inc.	BUY	9.85	Ordinary	2,815	2,815
11-Aug-21	The Vanguard Group, Inc.	BUY	9.85	Ordinary	3,392	3,392
13-Aug-21	The Vanguard Group, Inc.	BUY	9.76	Ordinary	6,512	6,512
13-Aug-21	The Vanguard Group, Inc.	BUY	9.76	Ordinary	7,326	7,326
13-Aug-21	The Vanguard Group, Inc.	BUY	9.76	Ordinary	10,175	10,175
13-Aug-21	The Vanguard Group, Inc.	BUY	9.76	Ordinary	4,884	4,884
16-Aug-21	The Vanguard Group, Inc.	BUY	9.89	Ordinary	5,020	5,020
16-Aug-21	The Vanguard Group, Inc.	BUY	9.89	Ordinary	12,550	12,550
17-Aug-21	The Vanguard Group, Inc.	BUY	9.71	Ordinary	6,310	6,310
17-Aug-21	The Vanguard Group, Inc.	BUY	9.73	Ordinary	17,950	17,950
18-Aug-21	The Vanguard Group, Inc.	BUY	9.86	Ordinary	13,431	13,431
18-Aug-21	The Vanguard Group, Inc.	SELL	9.90	Ordinary	(552)	(552)
19-Aug-21	The Vanguard Group, Inc.	BUY	9.88	Ordinary	10,240	10,240
19-Aug-21	The Vanguard Group, Inc.	BUY	9.85	Ordinary	1,674	1,674
20-Aug-21	The Vanguard Group, Inc.	BUY	10.00	Ordinary	6,275	6,275
20-Aug-21	The Vanguard Group, Inc.	BUY	9.97	Ordinary	28,133	28,133
23-Aug-21	The Vanguard Group, Inc.	BUY	10.06	Ordinary	2,142	2,142
23-Aug-21	The Vanguard Group, Inc.	BUY	10.06	Ordinary	5,020	5,020
23-Aug-21	The Vanguard Group, Inc.	BUY	10.06	Ordinary	7,530	7,530
23-Aug-21	The Vanguard Group, Inc.	BUY	10.06	Ordinary	4,096	4,096
23-Aug-21	The Vanguard Group, Inc.	BUY	10.06	Ordinary	6,144	6,144
23-Aug-21	The Vanguard Group, Inc.	BUY	10.06	Ordinary	6,105	6,105
23-Aug-21	The Vanguard Group, Inc.	BUY	10.06	Ordinary	6,105	6,105
25-Aug-21	The Vanguard Group, Inc.	BUY	9.64	Ordinary	4,884	4,884
26-Aug-21	The Vanguard Group, Inc.	BUY	9.54	Ordinary	55,502	55,502
27-Aug-21	The Vanguard Group, Inc.	BUY	9.35	Ordinary	2,142	2,142
27-Aug-21	The Vanguard Group, Inc.	BUY	9.35	Ordinary	3,570	3,570
27-Aug-21	The Vanguard Group, Inc.	BUY	9.35	Ordinary	5,028	5,028
27-Aug-21	The Vanguard Group, Inc.	BUY	9.35	Ordinary	6,105	6,105
27-Aug-21	The Vanguard Group, Inc.	BUY	9.36	Ordinary	28,500	28,500
30-Aug-21	The Vanguard Group, Inc.	BUY	9.37	Ordinary	59,167	59,167
31-Aug-21	The Vanguard Group, Inc.	SELL	9.18	Ordinary	(21,020)	(21,020)
1-Sep-21	The Vanguard Group, Inc.	BUY	9.14	Ordinary	33,101	33,101
1-Sep-21	The Vanguard Group, Inc.	BUY	9.11	Ordinary	15,118	15,118
3-Sep-21	The Vanguard Group, Inc.	BUY	9.13	Ordinary	1,905	1,905
3-Sep-21	The Vanguard Group, Inc.	BUY	9.15	Ordinary	2,234	2,234
3-Sep-21	The Vanguard Group, Inc.	BUY	9.15	Ordinary	4,079	4,079
7-Sep-21	The Vanguard Group, Inc.	BUY	9.26	Ordinary	561	561
7-Sep-21	The Vanguard Group, Inc.	BUY	9.26	Ordinary	15,331	15,331
8-Sep-21	The Vanguard Group, Inc.	BUY	9.30	Ordinary	15,310	15,310
10-Sep-21	The Vanguard Group, Inc.	BUY	9.07	Ordinary	568	568
13-Sep-21	The Vanguard Group, Inc.	SELL	9.13	Ordinary	(6,723)	(6,723)
14-Sep-21	The Vanguard Group, Inc.	BUY	9.04	Ordinary	1,905	1,905
17-Sep-21	The Vanguard Group, Inc.	SELL	9.01	Ordinary	(6,658)	(6,658)
17-Sep-21	The Vanguard Group, Inc.	SELL	9.01	Ordinary	(292,447)	(292,447)
17-Sep-21	The Vanguard Group, Inc.	SELL	9.01	Ordinary	(35,667)	(35,667)
17-Sep-21	The Vanguard Group, Inc.	SELL	9.01	Ordinary	(16,032)	(16,032)
17-Sep-21	The Vanguard Group, Inc.	SELL	9.01	Ordinary	(5,772)	(5,772)
20-Sep-21	The Vanguard Group, Inc.	BUY	8.81	Ordinary	6,350	6,350
21-Sep-21	The Vanguard Group, Inc.	BUY	8.45	Ordinary	1,270	1,270
21-Sep-21	The Vanguard Group, Inc.	BUY	8.46	Ordinary	1,628	1,628
22-Sep-21	The Vanguard Group, Inc.	BUY	8.55	Ordinary	70,028	70,028
23-Sep-21	The Vanguard Group, Inc.	BUY	8.73	Ordinary	7,932	7,932
23-Sep-21	The Vanguard Group, Inc.	BUY	8.66	Ordinary	188,529	188,529
23-Sep-21	The Vanguard Group, Inc.	BUY	8.73	Ordinary	1,270	1,270
23-Sep-21	The Vanguard Group, Inc.	BUY	8.73	Ordinary	790	790
24-Sep-21	The Vanguard Group, Inc.	BUY	8.66	Ordinary	48,036	48,036
24-Sep-21	The Vanguard Group, Inc.	SELL	8.81	Ordinary	(372)	(372)
24-Sep-21	The Vanguard Group, Inc.	BUY	8.66	Ordinary	457	457
24-Sep-21	The Vanguard Group, Inc.	BUY	8.66	Ordinary	16,962	16,962
28-Sep-21	The Vanguard Group, Inc.	BUY	8.53	Ordinary	1,270	1,270
28-Sep-21	The Vanguard Group, Inc.	BUY	8.62	Ordinary	31,870	31,870
30-Sep-21	The Vanguard Group, Inc.	BUY	8.62	Ordinary	21,984	21,984

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
30-Sep-21	The Vanguard Group, Inc.	BUY	8.72	Ordinary	64,350	64,350
1-Oct-21	The Vanguard Group, Inc.	BUY	8.69	Ordinary	2,142	2,142
4-Oct-21	The Vanguard Group, Inc.	BUY	8.80	Ordinary	39,828	39,828
4-Oct-21	The Vanguard Group, Inc.	BUY	8.75	Ordinary	1,748	1,748
4-Oct-21	The Vanguard Group, Inc.	BUY	8.75	Ordinary	18,251	18,251
5-Oct-21	The Vanguard Group, Inc.	BUY	8.77	Ordinary	63,579	63,579
5-Oct-21	The Vanguard Group, Inc.	BUY	8.80	Ordinary	1,270	1,270
5-Oct-21	The Vanguard Group, Inc.	BUY	8.77	Ordinary	813	813
5-Oct-21	The Vanguard Group, Inc.	SELL	8.77	Ordinary	(38,920)	(38,920)
6-Oct-21	The Vanguard Group, Inc.	SELL	8.80	Ordinary	(218)	(218)
6-Oct-21	The Vanguard Group, Inc.	BUY	8.78	Ordinary	594	594
7-Oct-21	The Vanguard Group, Inc.	SELL	8.81	Ordinary	(15,548)	(15,548)
8-Oct-21	The Vanguard Group, Inc.	BUY	8.78	Ordinary	8,244	8,244
11-Oct-21	The Vanguard Group, Inc.	BUY	8.72	Ordinary	2,856	2,856
11-Oct-21	The Vanguard Group, Inc.	BUY	8.74	Ordinary	825	825
12-Oct-21	The Vanguard Group, Inc.	BUY	8.72	Ordinary	36,797	36,797
12-Oct-21	The Vanguard Group, Inc.	BUY	8.68	Ordinary	4,503	4,503
13-Oct-21	The Vanguard Group, Inc.	BUY	8.69	Ordinary	2,856	2,856
13-Oct-21	The Vanguard Group, Inc.	BUY	8.69	Ordinary	5,496	5,496
13-Oct-21	The Vanguard Group, Inc.	BUY	8.69	Ordinary	10,992	10,992
13-Oct-21	The Vanguard Group, Inc.	BUY	8.69	Ordinary	6,105	6,105
13-Oct-21	The Vanguard Group, Inc.	BUY	8.69	Ordinary	1,270	1,270
15-Oct-21	The Vanguard Group, Inc.	BUY	8.46	Ordinary	2,142	2,142
15-Oct-21	The Vanguard Group, Inc.	SELL	8.60	Ordinary	(201)	(201)
19-Oct-21	The Vanguard Group, Inc.	BUY	8.45	Ordinary	6,105	6,105
19-Oct-21	The Vanguard Group, Inc.	BUY	8.45	Ordinary	1,905	1,905
19-Oct-21	The Vanguard Group, Inc.	BUY	8.45	Ordinary	635	635
19-Oct-21	The Vanguard Group, Inc.	BUY	8.43	Ordinary	579	579
20-Oct-21	The Vanguard Group, Inc.	BUY	8.39	Ordinary	1,270	1,270
20-Oct-21	The Vanguard Group, Inc.	BUY	8.39	Ordinary	1,964	1,964
21-Oct-21	The Vanguard Group, Inc.	BUY	8.41	Ordinary	5,080	5,080
22-Oct-21	The Vanguard Group, Inc.	BUY	8.52	Ordinary	1,746	1,746
25-Oct-21	The Vanguard Group, Inc.	BUY	8.57	Ordinary	8,244	8,244
25-Oct-21	The Vanguard Group, Inc.	BUY	8.55	Ordinary	1,006	1,006
27-Oct-21	The Vanguard Group, Inc.	BUY	8.32	Ordinary	4,477	4,477
27-Oct-21	The Vanguard Group, Inc.	BUY	8.32	Ordinary	8,140	8,140
27-Oct-21	The Vanguard Group, Inc.	SELL	8.46	Ordinary	(276)	(276)
28-Oct-21	The Vanguard Group, Inc.	BUY	8.39	Ordinary	3,663	3,663
28-Oct-21	The Vanguard Group, Inc.	BUY	8.38	Ordinary	580	580
29-Oct-21	The Vanguard Group, Inc.	SELL	8.25	Ordinary	(5,205)	(5,205)
29-Oct-21	The Vanguard Group, Inc.	BUY	8.20	Ordinary	580	580
1-Nov-21	The Vanguard Group, Inc.	BUY	8.42	Ordinary	8,244	8,244
1-Nov-21	The Vanguard Group, Inc.	BUY	8.42	Ordinary	5,496	5,496
1-Nov-21	The Vanguard Group, Inc.	BUY	8.42	Ordinary	6,105	6,105
3-Nov-21	The Vanguard Group, Inc.	BUY	8.75	Ordinary	6,870	6,870
5-Nov-21	The Vanguard Group, Inc.	BUY	8.86	Ordinary	36,918	36,918
5-Nov-21	The Vanguard Group, Inc.	BUY	8.86	Ordinary	6,512	6,512
5-Nov-21	The Vanguard Group, Inc.	BUY	8.86	Ordinary	30,871	30,871
8-Nov-21	The Vanguard Group, Inc.	BUY	8.71	Ordinary	8,244	8,244
8-Nov-21	The Vanguard Group, Inc.	BUY	8.71	Ordinary	15,114	15,114
8-Nov-21	The Vanguard Group, Inc.	BUY	8.71	Ordinary	6,105	6,105
10-Nov-21	The Vanguard Group, Inc.	SELL	8.73	Ordinary	(213)	(213)
10-Nov-21	The Vanguard Group, Inc.	BUY	8.82	Ordinary	1,905	1,905
11-Nov-21	The Vanguard Group, Inc.	BUY	8.91	Ordinary	2,688	2,688
11-Nov-21	The Vanguard Group, Inc.	BUY	8.91	Ordinary	10,992	10,992
11-Nov-21	The Vanguard Group, Inc.	BUY	8.91	Ordinary	5,496	5,496
11-Nov-21	The Vanguard Group, Inc.	BUY	8.91	Ordinary	7,287	7,287
11-Nov-21	The Vanguard Group, Inc.	BUY	8.91	Ordinary	18,738	18,738
11-Nov-21	The Vanguard Group, Inc.	BUY	8.91	Ordinary	3,123	3,123
11-Nov-21	The Vanguard Group, Inc.	BUY	8.91	Ordinary	9,369	9,369
11-Nov-21	The Vanguard Group, Inc.	BUY	8.91	Ordinary	8,140	8,140
11-Nov-21	The Vanguard Group, Inc.	BUY	8.91	Ordinary	1,270	1,270
11-Nov-21	The Vanguard Group, Inc.	BUY	8.91	Ordinary	1,270	1,270
11-Nov-21	The Vanguard Group, Inc.	BUY	8.89	Ordinary	17,676	17,676
12-Nov-21	The Vanguard Group, Inc.	BUY	8.88	Ordinary	4,070	4,070
12-Nov-21	The Vanguard Group, Inc.	SELL	8.89	Ordinary	(485)	(485)
17-Nov-21	The Vanguard Group, Inc.	BUY	9.07	Ordinary	30,471	30,471
17-Nov-21	The Vanguard Group, Inc.	BUY	9.09	Ordinary	562	562
19-Nov-21	The Vanguard Group, Inc.	BUY	9.12	Ordinary	6,870	6,870
19-Nov-21	The Vanguard Group, Inc.	BUY	9.14	Ordinary	1,754	1,754
19-Nov-21	The Vanguard Group, Inc.	BUY	9.14	Ordinary	15,331	15,331
23-Nov-21	The Vanguard Group, Inc.	BUY	9.43	Ordinary	5,496	5,496
24-Nov-21	The Vanguard Group, Inc.	BUY	9.54	Ordinary	1,270	1,270
24-Nov-21	The Vanguard Group, Inc.	BUY	9.54	Ordinary	1,270	1,270
24-Nov-21	The Vanguard Group, Inc.	BUY	9.53	Ordinary	2,593	2,593

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
26-Nov-21	The Vanguard Group, Inc.	BUY	9.58	Ordinary	9,618	9,618
26-Nov-21	The Vanguard Group, Inc.	BUY	9.64	Ordinary	539	539
29-Nov-21	The Vanguard Group, Inc.	BUY	9.73	Ordinary	2,868	2,868
29-Nov-21	The Vanguard Group, Inc.	BUY	9.73	Ordinary	8,244	8,244
30-Nov-21	The Vanguard Group, Inc.	BUY	9.49	Ordinary	3,078	3,078
30-Nov-21	The Vanguard Group, Inc.	BUY	9.49	Ordinary	8,244	8,244
30-Nov-21	The Vanguard Group, Inc.	BUY	9.49	Ordinary	10,992	10,992
30-Nov-21	The Vanguard Group, Inc.	BUY	9.49	Ordinary	13,740	13,740
30-Nov-21	The Vanguard Group, Inc.	BUY	9.49	Ordinary	3,123	3,123
30-Nov-21	The Vanguard Group, Inc.	BUY	9.49	Ordinary	10,989	10,989
30-Nov-21	The Vanguard Group, Inc.	BUY	9.53	Ordinary	2,289	2,289
30-Nov-21	The Vanguard Group, Inc.	SELL	9.58	Ordinary	(19,664)	(19,664)
1-Dec-21	The Vanguard Group, Inc.	BUY	9.26	Ordinary	20,610	20,610
1-Dec-21	The Vanguard Group, Inc.	BUY	9.48	Ordinary	36,232	36,232
1-Dec-21	The Vanguard Group, Inc.	BUY	9.32	Ordinary	551	551
1-Dec-21	The Vanguard Group, Inc.	SELL	9.32	Ordinary	(5,871)	(5,871)
3-Dec-21	The Vanguard Group, Inc.	BUY	9.43	Ordinary	753	753
3-Dec-21	The Vanguard Group, Inc.	BUY	9.43	Ordinary	21,655	21,655
6-Dec-21	The Vanguard Group, Inc.	BUY	9.66	Ordinary	29,860	29,860
7-Dec-21	The Vanguard Group, Inc.	BUY	9.81	Ordinary	8,244	8,244
7-Dec-21	The Vanguard Group, Inc.	BUY	9.81	Ordinary	8,244	8,244
7-Dec-21	The Vanguard Group, Inc.	BUY	9.81	Ordinary	37,291	37,291
7-Dec-21	The Vanguard Group, Inc.	BUY	9.75	Ordinary	2,208	2,208
7-Dec-21	The Vanguard Group, Inc.	SELL	9.75	Ordinary	(17,111)	(17,111)
6-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.64	Ordinary	3,730	3,730
6-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.64	Ordinary	8,068	8,068
6-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.64	Ordinary	68,252	68,252
9-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.69	Ordinary	12,468	12,468
12-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.73	Ordinary	30,457	30,457
12-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.73	Ordinary	17,553	17,553
12-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.73	Ordinary	67,499	67,499
13-Aug-21	Vanguard Investments Australia Ltd.	SELL	9.76	Ordinary	(3,716)	(3,716)
16-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.88	Ordinary	10,125	10,125
16-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.88	Ordinary	20,840	20,840
18-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.90	Ordinary	8,120	8,120
18-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.90	Ordinary	20,780	20,780
18-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.90	Ordinary	8,312	8,312
18-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.90	Ordinary	6,672	6,672
19-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.85	Ordinary	13,520	13,520
20-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.97	Ordinary	6,093	6,093
20-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.97	Ordinary	5,200	5,200
23-Aug-21	Vanguard Investments Australia Ltd.	BUY	10.06	Ordinary	7,888	7,888
24-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.96	Ordinary	6,096	6,096
25-Aug-21	Vanguard Investments Australia Ltd.	SELL	9.66	Ordinary	(3,578)	(3,578)
25-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.66	Ordinary	13,559	13,559
26-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.33	Ordinary	10,440	10,440
30-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.32	Ordinary	10,190	10,190
30-Aug-21	Vanguard Investments Australia Ltd.	BUY	9.32	Ordinary	14,616	14,616
1-Sep-21	Vanguard Investments Australia Ltd.	BUY	9.11	Ordinary	8,164	8,164
1-Sep-21	Vanguard Investments Australia Ltd.	BUY	9.11	Ordinary	16,755	16,755
2-Sep-21	Vanguard Investments Australia Ltd.	BUY	9.06	Ordinary	16,816	16,816
2-Sep-21	Vanguard Investments Australia Ltd.	BUY	9.06	Ordinary	73,941	73,941
3-Sep-21	Vanguard Investments Australia Ltd.	BUY	9.15	Ordinary	40,227	40,227
6-Sep-21	Vanguard Investments Australia Ltd.	BUY	9.25	Ordinary	17,328	17,328
6-Sep-21	Vanguard Investments Australia Ltd.	BUY	9.25	Ordinary	12,684	12,684
7-Sep-21	Vanguard Investments Australia Ltd.	BUY	9.26	Ordinary	8,252	8,252
8-Sep-21	Vanguard Investments Australia Ltd.	BUY	9.30	Ordinary	4,128	4,128
8-Sep-21	Vanguard Investments Australia Ltd.	BUY	9.30	Ordinary	31,604	31,604
9-Sep-21	Vanguard Investments Australia Ltd.	SELL	9.15	Ordinary	(6,306)	(6,306)
9-Sep-21	Vanguard Investments Australia Ltd.	BUY	9.15	Ordinary	8,256	8,256
9-Sep-21	Vanguard Investments Australia Ltd.	BUY	9.15	Ordinary	14,840	14,840
9-Sep-21	Vanguard Investments Australia Ltd.	BUY	9.15	Ordinary	18,162	18,162
13-Sep-21	Vanguard Investments Australia Ltd.	BUY	9.13	Ordinary	7,947	7,947
15-Sep-21	Vanguard Investments Australia Ltd.	SELL	9.07	Ordinary	(3,074)	(3,074)
15-Sep-21	Vanguard Investments Australia Ltd.	BUY	9.07	Ordinary	12,684	12,684
16-Sep-21	Vanguard Investments Australia Ltd.	BUY	9.11	Ordinary	10,320	10,320
17-Sep-21	Vanguard Investments Australia Ltd.	SELL	9.01	Ordinary	(1,281)	(1,281)
17-Sep-21	Vanguard Investments Australia Ltd.	BUY	9.00	Ordinary	11,414	11,414
20-Sep-21	Vanguard Investments Australia Ltd.	BUY	8.88	Ordinary	10,310	10,310
20-Sep-21	Vanguard Investments Australia Ltd.	BUY	8.88	Ordinary	14,014	14,014
21-Sep-21	Vanguard Investments Australia Ltd.	BUY	8.46	Ordinary	6,186	6,186
23-Sep-21	Vanguard Investments Australia Ltd.	BUY	8.73	Ordinary	16,983	16,983
28-Sep-21	Vanguard Investments Australia Ltd.	BUY	8.59	Ordinary	11,916	11,916
29-Sep-21	Vanguard Investments Australia Ltd.	BUY	8.58	Ordinary	18,477	18,477
29-Sep-21	Vanguard Investments Australia Ltd.	BUY	8.58	Ordinary	4,970	4,970

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
30-Sep-21	Vanguard Investments Australia Ltd.	SELL	8.72	Ordinary	(71,143)	(71,143)
1-Oct-21	Vanguard Investments Australia Ltd.	BUY	8.67	Ordinary	14,715	14,715
1-Oct-21	Vanguard Investments Australia Ltd.	BUY	8.67	Ordinary	15,696	15,696
4-Oct-21	Vanguard Investments Australia Ltd.	BUY	8.75	Ordinary	4,920	4,920
7-Oct-21	Vanguard Investments Australia Ltd.	BUY	8.81	Ordinary	11,165	11,165
8-Oct-21	Vanguard Investments Australia Ltd.	BUY	8.79	Ordinary	15,664	15,664
12-Oct-21	Vanguard Investments Australia Ltd.	BUY	8.68	Ordinary	10,614	10,614
14-Oct-21	Vanguard Investments Australia Ltd.	BUY	8.63	Ordinary	12,066	12,066
15-Oct-21	Vanguard Investments Australia Ltd.	BUY	8.44	Ordinary	12,493	12,493
18-Oct-21	Vanguard Investments Australia Ltd.	SELL	8.51	Ordinary	(8,562)	(8,562)
18-Oct-21	Vanguard Investments Australia Ltd.	SELL	8.51	Ordinary	(17,146)	(17,146)
19-Oct-21	Vanguard Investments Australia Ltd.	BUY	8.43	Ordinary	7,382	7,382
21-Oct-21	Vanguard Investments Australia Ltd.	BUY	8.40	Ordinary	12,298	12,298
22-Oct-21	Vanguard Investments Australia Ltd.	BUY	8.52	Ordinary	12,066	12,066
27-Oct-21	Vanguard Investments Australia Ltd.	IN SPECIE	8.35	Ordinary	(567,376)	(567,376)
27-Oct-21	Vanguard Investments Australia Ltd.	BUY	8.35	Ordinary	26,143	26,143
28-Oct-21	Vanguard Investments Australia Ltd.	BUY	8.37	Ordinary	91,129	91,129
29-Oct-21	Vanguard Investments Australia Ltd.	BUY	8.20	Ordinary	14,085	14,085
29-Oct-21	Vanguard Investments Australia Ltd.	BUY	8.20	Ordinary	7,736	7,736
1-Nov-21	Vanguard Investments Australia Ltd.	BUY	8.41	Ordinary	4,690	4,690
2-Nov-21	Vanguard Investments Australia Ltd.	SELL	8.68	Ordinary	(57,008)	(57,008)
3-Nov-21	Vanguard Investments Australia Ltd.	BUY	8.72	Ordinary	4,315	4,315
3-Nov-21	Vanguard Investments Australia Ltd.	BUY	8.72	Ordinary	10,045	10,045
4-Nov-21	Vanguard Investments Australia Ltd.	BUY	8.74	Ordinary	11,328	11,328
4-Nov-21	Vanguard Investments Australia Ltd.	BUY	8.74	Ordinary	19,367	19,367
5-Nov-21	Vanguard Investments Australia Ltd.	IN SPECIE	8.82	Ordinary	(5,538,475)	(5,538,475)
5-Nov-21	Vanguard Investments Australia Ltd.	BUY	8.84	Ordinary	79,050	79,050
5-Nov-21	Vanguard Investments Australia Ltd.	BUY	8.84	Ordinary	7,941	7,941
8-Nov-21	Vanguard Investments Australia Ltd.	BUY	8.70	Ordinary	5,117	5,117
9-Nov-21	Vanguard Investments Australia Ltd.	BUY	8.70	Ordinary	10,307	10,307
10-Nov-21	Vanguard Investments Australia Ltd.	BUY	8.82	Ordinary	12,102	12,102
10-Nov-21	Vanguard Investments Australia Ltd.	BUY	8.82	Ordinary	74,224	74,224
12-Nov-21	Vanguard Investments Australia Ltd.	BUY	8.88	Ordinary	7,966	7,966
17-Nov-21	Vanguard Investments Australia Ltd.	BUY	9.09	Ordinary	12,126	12,126
17-Nov-21	Vanguard Investments Australia Ltd.	BUY	9.09	Ordinary	9,400	9,400
18-Nov-21	Vanguard Investments Australia Ltd.	BUY	9.15	Ordinary	25,754	25,754
18-Nov-21	Vanguard Investments Australia Ltd.	BUY	9.15	Ordinary	2,835	2,835
19-Nov-21	Vanguard Investments Australia Ltd.	BUY	9.14	Ordinary	14,189	14,189
23-Nov-21	Vanguard Investments Australia Ltd.	BUY	9.43	Ordinary	9,510	9,510
23-Nov-21	Vanguard Investments Australia Ltd.	BUY	9.43	Ordinary	3,804	3,804
24-Nov-21	Vanguard Investments Australia Ltd.	BUY	9.53	Ordinary	11,436	11,436
25-Nov-21	Vanguard Investments Australia Ltd.	IN SPECIE	9.60	Ordinary	(303,811)	(303,811)
25-Nov-21	Vanguard Investments Australia Ltd.	IN SPECIE	9.60	Ordinary	(794,752)	(794,752)
25-Nov-21	Vanguard Investments Australia Ltd.	BUY	9.60	Ordinary	10,135	10,135
26-Nov-21	Vanguard Investments Australia Ltd.	BUY	9.64	Ordinary	9,580	9,580
30-Nov-21	Vanguard Investments Australia Ltd.	BUY	9.53	Ordinary	10,135	10,135
30-Nov-21	Vanguard Investments Australia Ltd.	BUY	9.53	Ordinary	11,604	11,604
30-Nov-21	Vanguard Investments Australia Ltd.	SELL	9.53	Ordinary	(7,381)	(7,381)
2-Dec-21	Vanguard Investments Australia Ltd.	BUY	9.47	Ordinary	14,430	14,430
6-Dec-21	Vanguard Investments Australia Ltd.	BUY	9.85	Ordinary	10,135	10,135
7-Dec-21	Vanguard Investments Australia Ltd.	BUY	9.75	Ordinary	69,038	69,038
7-Dec-21	Vanguard Investments Australia Ltd.	BUY	9.75	Ordinary	11,760	11,760

This is Annexure A of 4 pages referred to in Form 603, Notice of initial substantial holder.

Signature:



Name: Shawn Acker

Capacity: Compliance Manager

Date: 09 December 2021