

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

(Amendment No. 1)*

Energy Recovery, Inc

(Name of Issuer)

Common Stock

(Title of Class of Securities)

29270J100

(CUSIP Number)

12/31/2024

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
 Rule 13d-1(c)
 Rule 13d-1(d)

SCHEDULE 13G

CUSIP No. 29270J100

1	Names of Reporting Persons Ameriprise Financial, Inc.
2	Check the appropriate box if a member of a Group (see instructions) <input type="checkbox"/> (a) <input checked="" type="checkbox"/> (b)
3	Sec Use Only
4	Citizenship or Place of Organization DELAWARE

Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power
	6	Shared Voting Power 4,953,451.00
	7	Sole Dispositive Power
	8	Shared Dispositive Power 4,953,951.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person 4,953,951.00	
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) <input type="checkbox"/>	
11	Percent of class represented by amount in row (9) 8.6 %	
12	Type of Reporting Person (See Instructions) HC	

SCHEDULE 13G

CUSIP No.	29270J100
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1	Names of Reporting Persons TAM UK International Holdings Limited	
2	Check the appropriate box if a member of a Group (see instructions) <input type="checkbox"/> (a) <input checked="" type="checkbox"/> (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization UNITED KINGDOM	
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power
	6	Shared Voting Power 4,542,220.00
	7	Sole Dispositive Power
	8	Shared Dispositive Power 4,542,220.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person 4,542,220.00	
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) <input type="checkbox"/>	
11	Percent of class represented by amount in row (9) 7.9 %	

12	Type of Reporting Person (See Instructions) FI
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SCHEDULE 13G

CUSIP No.	29270J100
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1	Names of Reporting Persons Threadneedle Holdings Limited	
2	Check the appropriate box if a member of a Group (see instructions) <input type="checkbox"/> (a) <input checked="" type="checkbox"/> (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization UNITED KINGDOM	
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power
	6	Shared Voting Power 4,542,220.00
	7	Sole Dispositive Power
	8	Shared Dispositive Power 4,542,220.00
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10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) <input type="checkbox"/>	
11	Percent of class represented by amount in row (9) 7.9 %	
12	Type of Reporting Person (See Instructions) FI	

SCHEDULE 13G

CUSIP No.	29270J100
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1	Names of Reporting Persons TAM UK Holdings Limited	
2	Check the appropriate box if a member of a Group (see instructions) <input type="checkbox"/> (a) <input checked="" type="checkbox"/> (b)	
3	Sec Use Only	

4	Citizenship or Place of Organization UNITED KINGDOM	
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power
	6	Shared Voting Power 4,542,220.00
	7	Sole Dispositive Power
	8	Shared Dispositive Power 4,542,220.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person 4,542,220.00	
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) <input type="checkbox"/>	
11	Percent of class represented by amount in row (9) 7.9 %	
12	Type of Reporting Person (See Instructions) FI	

SCHEDULE 13G

CUSIP No.	29270J100
-----------	-----------

1	Names of Reporting Persons Threadneedle Asset Management Holdings Limited	
2	Check the appropriate box if a member of a Group (see instructions) <input type="checkbox"/> (a) <input checked="" type="checkbox"/> (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization UNITED KINGDOM	
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power
	6	Shared Voting Power 4,542,220.00
	7	Sole Dispositive Power
	8	Shared Dispositive Power 4,542,220.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person 4,542,220.00	
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) <input type="checkbox"/>	

11	Percent of class represented by amount in row (9) 7.9 %
12	Type of Reporting Person (See Instructions) FI

SCHEDULE 13G

CUSIP No.	29270J100
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1	Names of Reporting Persons TC Financing Ltd
2	Check the appropriate box if a member of a Group (see instructions) <input type="checkbox"/> (a) <input checked="" type="checkbox"/> (b)
3	Sec Use Only
4	Citizenship or Place of Organization UNITED KINGDOM
Number of Shares Beneficially Owned by Each Reporting Person With:	5 Sole Voting Power
	6 Shared Voting Power 4,542,220.00
	7 Sole Dispositive Power
	8 Shared Dispositive Power 4,542,220.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person 4,542,220.00
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) <input type="checkbox"/>
11	Percent of class represented by amount in row (9) 7.9 %
12	Type of Reporting Person (See Instructions) FI

SCHEDULE 13G

CUSIP No.	29270J100
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1	Names of Reporting Persons Threadneedle Asset Management Limited
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2	Check the appropriate box if a member of a Group (see instructions)	
	<input type="checkbox"/> (a)	<input checked="" type="checkbox"/> (b)
3	Sec Use Only	
4	Citizenship or Place of Organization UNITED KINGDOM	
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power
	6	Shared Voting Power 4,542,220.00
	7	Sole Dispositive Power
	8	Shared Dispositive Power 4,542,220.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person 4,542,220.00	
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) <input type="checkbox"/>	
11	Percent of class represented by amount in row (9) 7.9 %	
12	Type of Reporting Person (See Instructions) FI	

SCHEDULE 13G

CUSIP No.	29270J100
-----------	-----------

1	Names of Reporting Persons Threadneedle Investment Services Limited	
2	Check the appropriate box if a member of a Group (see instructions)	
	<input type="checkbox"/> (a)	<input checked="" type="checkbox"/> (b)
3	Sec Use Only	
4	Citizenship or Place of Organization UNITED KINGDOM	
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power
	6	Shared Voting Power 4,542,220.00
	7	Sole Dispositive Power
	8	Shared Dispositive Power 4,542,220.00

9	Aggregate Amount Beneficially Owned by Each Reporting Person 4,542,220.00
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) <input type="checkbox"/>
11	Percent of class represented by amount in row (9) 7.9 %
12	Type of Reporting Person (See Instructions) FI

SCHEDULE 13G

Item 1.

(a) **Name of issuer:**

Energy Recovery, Inc

(b) **Address of issuer's principal executive offices:**

1717 Doolittle Drive, San Leandro, CA 94577

Item 2.

(a) **Name of person filing:**

- (a) Ameriprise Financial, Inc. ("AFI")
 - (b) TAM UK International Holdings Limited ("TAMUKI")
 - (c) Threadneedle Holdings Limited ("THL")
 - (d) TAM UK Holdings Limited ("TUHL")
 - (e) Threadneedle Asset Management Holdings Limited ("TAMHL")
 - (f) TC Financing Ltd ("TCFL")
 - (g) Threadneedle Asset Management Limited ("TAML")
 - (h) Threadneedle Investment Services Limited ("TISL")
- Persons (a) through (h) are sometimes referred to herein as the "Ameriprise Entities".

(b) **Address or principal business office or, if none, residence:**

- (a) 145 Ameriprise Financial Center, Minneapolis, MN 55474
- (b) Cannon Place, 78 Cannon Street, London, EC4N 6AG
- (c) Cannon Place, 78 Cannon Street, London, EC4N 6AG
- (d) Cannon Place, 78 Cannon Street, London, EC4N 6AG
- (e) Cannon Place, 78 Cannon Street, London, EC4N 6AG
- (f) Cannon Place, 78 Cannon Street, London, EC4N 6AG
- (g) Cannon Place, 78 Cannon Street, London, EC4N 6AG
- (h) Cannon Place, 78 Cannon Street, London, EC4N 6AG

(c) **Citizenship:**

- (a) Delaware
- (b) United Kingdom
- (c) United Kingdom
- (d) United Kingdom
- (e) United Kingdom
- (f) United Kingdom
- (g) United Kingdom
- (h) United Kingdom

(d) **Title of class of securities:**

Common Stock

(e) **CUSIP No.:**

29270J100

Item 3. If this statement is filed pursuant to §§ 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

- (a) Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o);
- (b) Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);
- (c) Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c);
- (d) Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8);

- (e) An investment adviser in accordance with § 240.13d-1(b)(1)(ii)(E);
- (f) An employee benefit plan or endowment fund in accordance with § 240.13d-1(b)(1)(ii)(F);
- (g) A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);
- (h) A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j) A non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J). If filing as a non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J), please specify the type of institution:
- (k) Group, in accordance with Rule 240.13d-1(b)(1)(ii)(K).

Item 4. Ownership

(a) Amount beneficially owned:

Incorporated by reference to Items (5)-(9) and (11) of the cover page pertaining to each reporting person. AFI, as the parent company of the other Ameriprise Entities, may be deemed to beneficially own the shares reported herein by those reporting persons. Accordingly, the shares reported herein by AFI include those shares separately reported herein by those reporting persons. Each of the Ameriprise Entities disclaims beneficial ownership of any shares reported on this Schedule.

(b) Percent of class:

The information required by Item 4(b) is set forth in Rows (5)-(9) and (11) of the cover page for each Reporting Person hereto and is incorporated herein by reference for each Reporting Person. %

(c) Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote:

The information required by Item 4(c) is set forth in Rows (5)-(9) and (11) of the cover page for each Reporting Person hereto and is incorporated herein by reference for each Reporting Person.

(ii) Shared power to vote or to direct the vote:

The information required by Item 4(c) is set forth in Rows (5)-(9) and (11) of the cover page for each Reporting Person hereto and is incorporated herein by reference for each Reporting Person.

(iii) Sole power to dispose or to direct the disposition of:

The information required by Item 4(c) is set forth in Rows (5)-(9) and (11) of the cover page for each Reporting Person hereto and is incorporated herein by reference for each Reporting Person.

(iv) Shared power to dispose or to direct the disposition of:

The information required by Item 4(c) is set forth in Rows (5)-(9) and (11) of the cover page for each Reporting Person hereto and is incorporated herein by reference for each Reporting Person.

Item 5. Ownership of 5 Percent or Less of a Class.

Item 6. Ownership of more than 5 Percent on Behalf of Another Person.

Not Applicable

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person.

If a parent holding company has filed this schedule, pursuant to Rule 13d-1(b)(ii)(G), so indicate under Item 3(g) and attach an exhibit stating the identity and the Item 3 classification of the relevant subsidiary. If a parent holding company has filed this schedule pursuant to Rule 13d-1(c) or Rule 13d-1(d), attach an exhibit stating the identification of the relevant subsidiary.

AFI: See Exhibit I

Item 8. Identification and Classification of Members of the Group.

Not Applicable

Item 9. Notice of Dissolution of Group.

Not Applicable

Item 10. Certifications:

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect, other than activities solely in connection with a nomination under ?? 240.14a-11.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Ameriprise Financial, Inc.

Signature: /s/ Michael G. Clarke
Name/Title: Michael G. Clarke Senior Vice President, North America Head of Operations & Investor Services
Date: 02/14/2025

TAM UK International Holdings Limited

Signature: /s/ Michael G. Clarke
Name/Title: By: Columbia Management Investment Advisers, LLC, as Attorney in Fact By: Michael G. Clarke SVP, North America Head of Operations & Investor Services
Date: 02/14/2025

Threadneedle Holdings Limited

Signature: /s/ Michael G. Clarke
Name/Title: By: Columbia Management Investment Advisers, LLC, as Attorney in Fact By: Michael G. Clarke SVP, North America Head of Operations & Investor Services
Date: 02/14/2025

TAM UK Holdings Limited

Signature: /s/ Michael G. Clarke
Name/Title: By: Columbia Management Investment Advisers, LLC, as Attorney in Fact By: Michael G. Clarke SVP, North America Head of Operations & Investor Services
Date: 02/14/2025

Threadneedle Asset Management Holdings Limited

Signature: /s/ Michael G. Clarke
Name/Title: By: Columbia Management Investment Advisers, LLC, as Attorney in Fact By: Michael G. Clarke SVP, North America Head of Operations & Investor Services
Date: 02/14/2025

TC Financing Ltd

Signature: /s/ Michael G. Clarke
Name/Title: By: Columbia Management Investment Advisers, LLC, as Attorney in Fact By: Michael G. Clarke SVP, North America Head of Operations & Investor Services
Date: 02/14/2025

Threadneedle Asset Management Limited

Signature: /s/ Michael G. Clarke

Name/Title: By: Columbia Management Investment Advisers, LLC,
as Attorney in Fact By: Michael G. Clarke SVP, North
America Head of Operations & Investor Services

Date: 02/14/2025

Threadneedle Investment Services Limited

Signature: /s/ Michael G. Clarke

Name/Title: By: Columbia Management Investment Advisers, LLC,
as Attorney in Fact By: Michael G. Clarke SVP, North
America Head of Operations & Investor Services

Date: 02/14/2025

Comments accompanying signature:

Contact Information

Charles Chiesa

VP Fund Treasurer Global Operations and Investor Services

Telephone: 617-385-9593

Exhibit Index

Exhibit I Identification and Classification of the Subsidiaries which Acquired the Security Being
Reported on by the Parent Holding Company.

Exhibit II Joint Filing Agreement

Exhibit III Powers of Attorney

Exhibit I

to

Schedule 13G

Ameriprise Financial, Inc., a Delaware Corporation, is a parent holding company. The classification and identity of the relevant subsidiaries is as follows:

Non-US Institution in accordance with Rule 13d-1(b)(1)(ii)(J) – TAM UK International Holdings Limited, a private limited company incorporated in England and Wales, is a holding company and parent entity to Threadneedle Holdings Limited.

Non-US Institution in accordance with Rule 13d-1(b)(1)(ii)(J) – Threadneedle Holdings Limited, a private limited company incorporated in England and Wales, is a holding company and is the parent entity to TAM UK Holdings Limited.

Non-US Institution in accordance with Rule 13d-1(b)(1)(ii)(J) – TAM UK Holdings Limited, a private limited company incorporated in England and Wales, is a holding company and is the parent entity to Threadneedle Asset Management Holdings Limited.

Non-US Institution in accordance with Rule 13d-1(b)(1)(ii)(J) – Threadneedle Asset Management Holdings Limited, a private limited company incorporated in England and Wales, is a holding company and is the parent entity to TC Financing Limited.

Non-US Institution in accordance with Rule 13d-1(b)(1)(ii)(J) – TC Financing Limited, a private limited company incorporated in England and Wales, is a holding company and is the parent entity to Threadneedle Asset Management Limited.

Non-US Institution in accordance with Rule 13d-1(b)(1)(ii)(J) – Threadneedle Asset Management Limited, a private limited company incorporated in England and Wales, is an investment adviser authorized and regulated by the UK Financial Conduct Authority.

Non-US Institution in accordance with Rule 13d-1(b)(1)(ii)(J) – Threadneedle Investment Services Limited, a private limited company incorporated in England and Wales, is a management company authorized and regulated by the U.K. Financial Conduct Authority.

Exhibit II

to

Schedule 13G

Joint Filing Agreement

The undersigned persons agree and consent to the joint filing on their behalf of this Schedule 13G dated February 14, 2025 in connection with their beneficial ownership of Energy Recovery, Inc. Each of TAM UK International Holdings Limited, Threadneedle Holdings Limited, TAM UK Holdings Limited, Threadneedle Asset Management Holdings Limited, TC Financing Limited, Threadneedle Asset Management Limited and Threadneedle Investment Services Limited authorizes Ameriprise Financial, Inc. to execute the Schedule 13G to which this Exhibit is attached and make any necessary amendments thereto.

Ameriprise Financial, Inc.

By: /s/ Michael G. Clarke

Name: Michael G. Clarke

Title: Senior Vice President, North America Head of Operations & Investor Services

TAM UK International Holdings Limited

By Columbia Management Investment Advisers, LLC, as Attorney in Fact

By: /s/ Michael G. Clarke

Name: Michael G. Clarke

Title: Senior Vice President, North America Head of Operations & Investor Services

Threadneedle Holdings Limited

By Columbia Management Investment Advisers, LLC, as Attorney in Fact

By: /s/ Michael G. Clarke

Name: Michael G. Clarke

Title: Senior Vice President, North America Head of Operations & Investor Services

TAM UK Holdings Limited

By Columbia Management Investment Advisers, LLC, as Attorney in Fact

By: /s/ Michael G. Clarke

Name: Michael G. Clarke

Title: Senior Vice President, North America Head of Operations & Investor Services

Threadneedle Asset Management Holdings Limited

By Columbia Management Investment Advisers, LLC, as Attorney in Fact

By: /s/ Michael G. Clarke

Name: Michael G. Clarke

Title: Senior Vice President, North America Head of Operations & Investor Services

TC Financing Ltd

By Columbia Management Investment Advisers, LLC, as Attorney in Fact

By: /s/ Michael G. Clarke

Name: Michael G. Clarke

Title: Senior Vice President, North America Head of Operations & Investor Services

Threadneedle Asset Management Limited

By Columbia Management Investment Advisers, LLC, as Attorney in Fact

By: /s/ Michael G. Clarke

Name: Michael G. Clarke

Title: Senior Vice President, North America Head of Operations & Investor Services

Threadneedle Investment Services Limited

By Columbia Management Investment Advisers, LLC, as Attorney in Fact

By: /s/ Michael G. Clarke

Name: Michael G. Clarke

Title: Senior Vice President, North America Head of Operations & Investor Services

Exhibit III

to

Schedule 13G

Powers of Attorney

LIMITED POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, which are intended to constitute a Limited Power of Attorney, that TAM UK International Holdings Limited, a company incorporated under the laws of England and Wales under registered number 12728685, with its principal place of business at Cannon Place, 78 Cannon Street, London, EC4N 6AG (“Threadneedle”), does hereby constitute and appoint Columbia Management Investment Advisers, LLC (“CMIA”), a Minnesota limited liability company with its principal office at 225 Franklin Street, Boston, MA 02110, as its true and lawful agent and attorney-in-fact with full power of substitution and revocation and with the power to execute and file with the appropriate governmental agencies within the United States, for and on behalf of Threadneedle, substantial shareholding reports, amendments to substantial shareholding reports, corrections thereto and other documents ancillary to such reports as required by applicable laws and regulations (the “Reports”) and to do any and all acts that said agent and attorney-in-fact deems necessary or appropriate in order to file such Reports.

This Limited Power of Attorney shall remain in effect until revoked in writing by Threadneedle.

IN WITNESS WHEREOF, this power of attorney was made as of this 9th day of December, 2020, by the undersigned as authorized representative of Threadneedle.

For and on behalf of TAM UK International Holdings Limited

By: /s/ Nick Ring

Name: Nick Ring

Title: Director

LIMITED POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, which are intended to constitute a Limited Power of Attorney, that Threadneedle Holdings Limited, a limited liability company incorporated under the laws of England and Wales under registered number 07398893, with its principal place of business at Cannon Place, 78 Cannon Street, London, EC4N 6AG (“Threadneedle”), does hereby constitute and appoint Columbia Management Investment Advisers, LLC (“CMIA”), a Minnesota limited liability company with its principal office at 225 Franklin Street, Boston, MA 02110, as its true and lawful agent and attorney-in-fact with full power of substitution and revocation and with the power to execute and file with the appropriate governmental agencies within the United States, for and on behalf of Threadneedle, substantial shareholding reports, amendments to substantial shareholding reports, corrections thereto and other documents ancillary to such reports as required by applicable laws and regulations (the “Reports”) and to do any and all acts that said agent and attorney-in-fact deems necessary or appropriate in order to file such Reports.

This Limited Power of Attorney shall remain in effect until revoked in writing by Threadneedle.

IN WITNESS WHEREOF, this power of attorney was made as of this _18_ day of _December_____, 2019_, by the undersigned as authorized representative of Threadneedle.

For and on behalf of Threadneedle Holdings Limited

By: /s/ Peter Stone
Name: Peter Stone
Title: Director

LIMITED POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, which are intended to constitute a Limited Power of Attorney, that TAM UK Holdings Limited a company incorporated under the laws of England and Wales under registered number 06779814, with its principal place of business at Cannon Place, 78 Cannon Street, London, EC4N 6AG (“Threadneedle”), does hereby constitute and appoint Columbia Management Investment Advisers, LLC (“CMIA”), a Minnesota limited liability company with its principal office at 225 Franklin Street, Boston, MA 02110, as its true and lawful agent and attorney-in-fact with full power of substitution and revocation and with the power to execute and file with the appropriate governmental agencies within the United States, for and on behalf of Threadneedle, substantial shareholding reports, amendments to substantial shareholding reports, corrections thereto and other documents ancillary to such reports as required by applicable laws and regulations (the “Reports”) and to do any and all acts that said agent and attorney-in-fact deems necessary or appropriate in order to file such Reports.

This Limited Power of Attorney shall remain in effect until revoked in writing by Threadneedle.

IN WITNESS WHEREOF, this power of attorney was made as of this 18 day of
December , 2019 , by the undersigned as authorized representative of Threadneedle.

For and on behalf of TAM UK Holdings Limited

By: /s/ Peter Stone
Name: Peter Stone
Title: Director

LIMITED POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, which are intended to constitute a Limited Power of Attorney, that Threadneedle Asset Management Holdings Limited, a company incorporated under the laws of England and Wales under registered number 03554212, with its principal place of business at Cannon Place, 78 Cannon Street, London, EC4N 6AG (“Threadneedle”), does hereby constitute and appoint Columbia Management Investment Advisers, LLC (“CMIA”), a Minnesota limited liability company with its principal office at 225 Franklin Street, Boston, MA 02110, as its true and lawful agent and attorney-in-fact with full power of substitution and revocation and with the power to execute and file with the appropriate governmental agencies within the United States, for and on behalf of Threadneedle, substantial shareholding reports, amendments to substantial shareholding reports, corrections thereto and other documents ancillary to such reports as required by applicable laws and regulations (the “Reports”) and to do any and all acts that said agent and attorney-in-fact deems necessary or appropriate in order to file such Reports.

This Limited Power of Attorney shall remain in effect until revoked in writing by Threadneedle.

IN WITNESS WHEREOF, this power of attorney was made as of this 18 day of December, 2019, by the undersigned as authorized representative of Threadneedle.

For and on behalf of Threadneedle Asset Management Holdings Limited

By: /s/ Peter Stone
Name: Peter Stone
Title: Director

LIMITED POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, which are intended to constitute a Limited Power of Attorney, that TC Financing Limited a company incorporated under the laws of England and Wales under registered number 07466657, with its principal place of business at Cannon Place, 78 Cannon Street, London, EC4N 6AG (“Threadneedle”), does hereby constitute and appoint Columbia Management Investment Advisers, LLC (“CMIA”), a Minnesota limited liability company with its principal office at 225 Franklin Street, Boston, MA 02110, as its true and lawful agent and attorney-in-fact with full power of substitution and revocation and with the power to execute and file with the appropriate governmental agencies within the United States, for and on behalf of Threadneedle, substantial shareholding reports, amendments to substantial shareholding reports, corrections thereto and other documents ancillary to such reports as required by applicable laws and regulations (the “Reports”) and to do any and all acts that said agent and attorney-in-fact deems necessary or appropriate in order to file such Reports.

This Limited Power of Attorney shall remain in effect until revoked in writing by Threadneedle.

IN WITNESS WHEREOF, this power of attorney was made as of this 18 day
December , 2019 , by the undersigned as authorized representative of Threadneedle.

For and on behalf of TC Financing Limited

By: /s/ Peter Stone Name: Peter Stone
Title: Director

LIMITED POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, which are intended to constitute a Limited Power of Attorney, that Threadneedle Asset Management Limited, a company incorporated under the laws of England and Wales under registered number 00573204, with its principal place of business at Cannon Place, 78 Cannon Street, London, EC4N 6AG (“Threadneedle”), does hereby constitute and appoint Columbia Management Investment Advisers, LLC (“CMIA”), a Minnesota limited liability company with its principal office at 225 Franklin Street, Boston, MA 02110, as its true and lawful agent and attorney-in-fact with full power of substitution and revocation and with the power to execute and file with the appropriate governmental agencies within the United States, for and on behalf of Threadneedle, substantial shareholding reports, amendments to substantial shareholding reports, corrections thereto and other documents ancillary to such reports as required by applicable laws and regulations (the “Reports”) and to do any and all acts that said agent and attorney-in-fact deems necessary or appropriate in order to file such Reports.

This Limited Power of Attorney shall remain in effect until revoked in writing by Threadneedle.

IN WITNESS WHEREOF, this power of attorney was made as of this 18 day of
December , 2019 , by the undersigned as authorized representative of Threadneedle.

For and on behalf of Threadneedle Asset Management Limited

By: /s/ Peter Stone

Name: Peter Sone

Title: Director

LIMITED POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, which are intended to constitute a Limited Power of Attorney, that Threadneedle Investment Services Limited, a company incorporated under the laws of England and Wales under registered number 3701768, with its principal place of business at Cannon Place, 78 Cannon Street, London, EC4N 6AG (“Threadneedle”), does hereby constitute and appoint Columbia Management Investment Advisers, LLC (“CMIA”), a Minnesota limited liability company with its principal office at 225 Franklin Street, Boston, MA 02110, as its true and lawful agent and attorney-in-fact with full power of substitution and revocation and with the power to execute and file with the appropriate governmental agencies within the United States, for and on behalf of Threadneedle, substantial shareholding reports, amendments to substantial shareholding reports, corrections thereto and other documents ancillary to such reports as required by applicable laws and regulations (the “Reports”) and to do any and all acts that said agent and attorney-in-fact deems necessary or appropriate in order to file such Reports.

This Limited Power of Attorney shall remain in effect until revoked in writing by Threadneedle.

IN WITNESS WHEREOF, this power of attorney was made as of this 11 day of December, 2019, by the undersigned as authorized representative of Threadneedle.

For and on behalf of Threadneedle Investment Services Limited

By: /s/ Peter Stone Name: Peter Stone
Title: Director
