

Rithm Acquisition Corp.

Nominating Committee Charter

Adopted February 2025

Purpose

The Nominating Committee (the “**Committee**”) is created by the Board of Directors (the “**Board**”) of Rithm Acquisition Corp. (the “**Company**”) to:

- review and evaluate the size, composition, function and duties of the Board consistent with its needs;
- recommend criteria for the selection of candidates to the Board and its committees, and identify individuals qualified to become Board members consistent with such criteria, including the consideration of nominees submitted by shareholders;
- recommend to the Board director nominees for appointment at the next annual or extraordinary general meeting of the Company at which directors are to be appointed or to fill any vacancies or newly created directorships that may occur between such meetings;
- recommend directors for appointment to Board committees;
- make recommendations to the Board as to determinations of director independence;
- oversee the evaluation of the Board; and
- develop and recommend to the Board the Corporate Governance Guidelines for the Company and oversee compliance with such Guidelines.

Membership

The Committee shall consist of at least three members, comprised solely of directors deemed by the Board to be independent and who meet the independence requirements of the NYSE. The Committee, in consultation with the Chair shall recommend nominees for appointment to the Committee annually and as vacancies or newly created positions occur. Committee members shall be appointed by the Board and may be removed by the Board at any time. The Board shall designate the Chair of the Committee.

Responsibilities

In addition to any other responsibilities which may be assigned from time to time by the Board, the Committee is responsible for the following matters.

Board/Committee Nominees

- The Committee shall oversee searches for and identify qualified individuals for membership on the Board.
- The Committee shall recommend to the Board criteria for Board and Board committee membership and shall recommend individuals for membership on

the Board. In making its recommendations for Board membership, the Committee shall:

- review candidates' qualifications for membership on the Board or a committee of the Board (including making a specific determination as to the independence of each candidate) based on the criteria approved by the Board (and taking into account the enhanced independence, financial literacy and financial expertise standards that may be required under law or Nasdaq rules for Audit Committee or other committee membership purposes);
- in evaluating current directors for re-nomination to the Board or re-appointment to any Board committees, assess the performance of such directors;
- periodically review the composition of the Board and its committees in light of the current challenges and needs of the Board, the Company and each committee, and determine whether it may be appropriate to add or remove individuals after considering issues of judgment, diversity, age, skills, background and experience; and
- consider any other factors that are set forth in the Company's Corporate Governance Guidelines or are deemed appropriate by the Committee or the Board.

Evaluating the Board and its Committees

- At least annually, the Committee shall lead the Board in a self-evaluation to determine whether it and its committees are functioning effectively. The Committee shall oversee the evaluation process and report on such process and the results of the evaluations, including any recommendations for proposed changes, to the Board.

Corporate Governance Matters

- The Committee shall develop and recommend to the Board the Corporate Governance Guidelines for the Company. At least annually, the Committee shall review and reassess the adequacy of such Corporate Governance Guidelines and recommend any proposed changes to the Board.
- The Committee shall be responsible for any tasks assigned to it in the Company's Corporate Governance Guidelines.
- The Committee shall review potential conflicts of interest involving directors, including whether such director or directors may vote on any issue as to which there may be a conflict.

Reporting to the Board

- The Committee shall report to the Board periodically.
- At least annually, the Committee shall evaluate its own performance and report to the Board on such evaluation.

- The Committee shall periodically review and assess the adequacy of this charter and recommend any proposed changes to the Board for approval.

Authority and Delegations

The Committee has the sole authority to retain and terminate any search firm assisting the Committee in identifying director candidates, including sole authority to approve all such search firm's fees and other retention terms.

The Committee may delegate its authority to subcommittees or the Chair of the Committee when it deems it to be appropriate and in the best interests of the Company.

Procedures

The Committee shall meet as often as it determines is appropriate to carry out its responsibilities under this charter. The Chair of the Committee, in consultation with the other Committee members, shall determine the frequency and length of the Committee meetings and shall set meeting agendas consistent with this charter.