# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## FORM 12b-25

## NOTIFICATION OF LATE FILING

 $\begin{array}{c|c} (Check \ One): & \Box \ \ Form \ 10-K & \Box \ \ Form \ 20-F & \Box \ \ Form \ 11-K & \boxtimes \ \ Form \ 10-Q \\ & \Box \ \ Form \ 10-D & \Box \ \ Form \ N-CEN & \Box \ \ Form \ N-CSR \end{array}$ 

For Period Ended: March 31, 2024

□ Transition Report on Form 10-K

□ Transition Report on Form 20-F

□ Transition Report on Form 11-K

□ Transition Report on Form 10-Q

For the Transition Period Ended:

Nothing in this form shall be construed to imply that the Commission has verified any information contained herein.

If the notification relates to a portion of the filing checked above, identify the Item(s) to which the notification relates:

### PART I – REGISTRANT INFORMATION

# **Atlantic Coastal Acquisition Corp. II**

Full Name of Registrant

N/A

Former Name if Applicable

6 St Johns Lane, Floor 5 Address of Principal Executive Office (Street and Number)

> New York, New York 10013 City, State and Zip Code

### PART II - RULES 12b-25(b) AND (c)

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25(b), the following should be completed. (Check box if appropriate)

- (a) The reasons described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense;
- (b) The subject annual report, semi-annual report, transition report on Form 10-K, Form 20-F, Form 11-K, Form N-CEN or Form N-CSR, or
- portion thereof, will be filed on or before the fifteenth calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q or subject distribution report on Form 10-D, or portion thereof, will be filed on or before the fifth calendar day following the prescribed due date; and
- (c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.

X

### PART III - NARRATIVE

State below in reasonable detail why Forms 10-K, 20-F, 11-K, 10-Q, 10-D, N-CEN, N-CSR, or the transition report or portion thereof, could not be filed within the prescribed time period.

Atlantic Coastal Acquisition Corp. II (the "Company") has determined that it is unable to file, without unreasonable effort and expense, its Quarterly Report on Form 10-Q for the quarter ended March 31, 2024 (the "Quarterly Report"), within the prescribed time period due to ongoing discussions with the Company's auditors concerning its financial statements and the Company's limited bandwidth from work in connection with Company's previously disclosed proposed business combination with Abpro Corporation. The Company is working diligently to finalize its financial statements to be included in such Quarterly Report as soon as possible and expects the filing of such Quarterly Report to be made in the coming weeks.

### PART IV - OTHER INFORMATION

(1) Name and telephone number of person to contact in regard to this notification

Jason Chryssicas	(248)	890-7200
(Name)	(Area Code)	(Telephone Number)

(2) Have all other periodic reports required under section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed? If the answer is no, identify report(s). ⊠ Yes □ No

(3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof?  $\Box$  Yes  $\boxtimes$  No

If so, attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

#### Atlantic Coastal Acquisition Corp. II

(Name of Registrant as Specified in Charter)

has caused this notification to be signed on its behalf by the undersigned hereunto duly authorized.

Date: May 15, 2024

By: /s/ Jason Chryssicas

Name: Jason Chryssicas Title: Chief Financial Officer