NANO NUCLEAR ENERGY INC. 10 Times Square, 30th Floor New York, New York 10018

July 9, 2024

VIA EDGAR

U.S. Securities and Exchange Commission Division of Corporation Finance Office of Energy & Transportation 100 F Street, N.E. Washington, D.C. 20549

Attention: Claudia Rios

Re: Nano Nuclear Energy Inc. Registration Statement on Form S-1 Filed July 9, 2024 File No. 333-280727

Dear Ms. Rios:

Pursuant to Rule 461 under the Securities Act of 1933, as amended, Nano Nuclear Energy Inc., hereby requests acceleration of effectiveness of the above referenced Registration Statement on Form S-1 so that it will become effective at 4:30 p.m., Eastern Time, on Thursday, July 11, 2024 (the "Effective Time"). The Company hereby grants to each of Richard I. Anslow, Esq. and Lawrence A. Rosenbloom, Esq. of Ellenoff Grossman & Schole LLP the authority to communicate to the staff of the U.S. Securities and Exchange Commission one or more requests for any potential deferral of the Effective Time.

Very truly yours,

/s/ James Walker

James Walker Chief Executive Officer

cc: Ellenoff Grossman & Schole LLP