UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM S-1 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Power & Digital Infrastructure Acquisition Corp.

(Exact name of registrant as specified in its charter)

Delaware677086-1243837(State or other jurisdiction of incorporation or organization)(Primary Standard Industrial incorporation Code Number)(IRS Employer Identification Code)

321 North Clark Street, Suite 2440 Chicago, IL 60654 (312) 262-5642

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Patrick C. Eilers Chief Executive Officer 321 North Clark Street, Suite 2440 Chicago, IL 60654 (312) 262-5642

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies:

Debbie P. Yee, P.C. Lance K. Hancock Kirkland & Ellis LLP 609 Main Street Houston, Texas 77002 Tel: (713) 836-3600 Fax: (713) 836-3601 E. Ramey Layne Alan Beck Vinson & Elkins L.L.P. 1001 Fannin Street Houston, Texas 77002 Tel: (713) 758-2222 Fax: (713) 758-2346

Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement becomes effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. $\boxtimes 333-252355$

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer □

Accelerated filer □

Non-accelerated filer ⊠

Smaller reporting company ⊠ Emerging growth company ⊠

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. \Box

CALCULATION OF REGISTRATION FEE

Title of Each Class of Security Being Registered	Amount Being Registered ⁽¹⁾	Proposed Maximum Offering Price Per Security ⁽²⁾	Proposed Maximum Aggregate Offering Price ⁽²⁾]	Amount of Registration Fee
Units, each consisting of one share of Class A common stock, \$0.0001 par value, and one-fourth of one redeemable warrant	5,750,000 units	\$ 10.00	\$ 57,500,000	\$	6,274.00
Class A common stock included as part of the units ⁽³⁾	5,750,000 shares	_	_		 (4)
Redeemable warrants included as part of the units ⁽³⁾	1,437,500 warrants	_			<u> </u>
Total			\$ 57,500,000	\$	6,274.00(5)

⁽¹⁾ Represents only the additional number of securities being registered. Does not include the securities that the Registrant previously registered on the Registration Statement on Form S-1 (File No. 333-252355).

The Registration Statement shall become effective upon filing with the U.S. Securities and Exchange Commission in accordance with Rule 462(b) under the Securities Act of 1933, as amended.

⁽²⁾ Estimated solely for the purpose of calculating the registration fee.

⁽³⁾ Pursuant to Rule 416(a), there are also being registered an indeterminable number of additional securities as may be offered or issued to prevent dilution resulting from stock splits, stock dividends, or similar transactions.

⁽⁴⁾ No fee pursuant to Rule 457(g).

⁽⁵⁾ The Registrant previously registered securities having a proposed maximum aggregate offering price of \$287,500,000 on its Registration Statement on Form S-1, as amended (File No. 333-252355), which was declared effective by the Securities and Exchange Commission on February 9, 2021. In accordance with Rule 462(b) under the Securities Act, an additional number of securities having a proposed maximum offering price of \$57,500,000 is hereby registered, which includes securities issuable upon the exercise of the underwriters' option to purchase additional units.

EXPLANATORY NOTE

This Registration Statement on Form S-1 (this "Registration Statement") is being filed with respect to the registration of 5,750,000 additional units of Power & Digital Infrastructure Acquisition Corp, a Delaware corporation (the "Registrant"), each consisting of one share of Class A common stock and one-fourth of one redeemable warrant, pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and General Instruction V to Form S-1. Each whole warrant entitles the holder thereof to purchase one share of Class A common stock at a price of \$11.50 per share, subject to adjustment, and only whole warrants are exercisable. This Registration Statement relates to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-252355) (the "Prior Registration Statement"), initially filed by the Registrant on January 22, 2021 and declared effective by the Securities and Exchange Commission (the "Commission") on February 9, 2021. The required opinion of counsel and related consent and accountant's consent are attached hereto and filed herewith. Pursuant to Rule 462(b), the contents of the Prior Registration Statement, including the exhibits thereto, are incorporated by reference into this Registration Statement.

CERTIFICATION

The Registrant hereby certifies to the Commission that (1) it has instructed its bank to pay the filing fee set forth on the cover page of this Registration Statement by a wire transfer of such amount to the Commission's account at U.S. Bank as soon as practicable (but no later than the close of business as of February 10, 2021), (2) it will not revoke such instructions, (3) it has sufficient funds in the relevant account to cover the amount of such filing fee and (4) it will confirm receipt of such instructions by its bank during regular business hours no later than February 10, 2021.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits. All exhibits filed with or incorporated by reference in the Prior Registration Statement on Form S-1 (SEC File No. 333-252355) are incorporated by reference into, and shall be deemed a part of, this Registration Statement, and the following additional exhibits are filed herewith, as part of this Registration Statement.

Exhibit No.	Description					
5.1	Opinion of Kirkland & Ellis LLP, Counsel to the Registrant,					
23.1	Consent of Marcum LLP.					
23.2	Consent of Kirkland & Ellis LLP (included on Exhibit 5.1).					
24	Power of Attorney (included on signature page to the initial filing of the Registration statement).					
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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Chicago, State of Illinois, on the 9th day of February 2021.

POWER & DIGITAL INFRASTRUCTURE ACQUISITION CORP.

By: /s/ Patrick C. Eilers
Name: Patrick C. Eilers
Title: Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

Name	Position	Date		
/s/ Patrick C. Eilers Patrick C. Eilers	Chief Executive Officer and Director (Principal Executive Officer)	February 9, 2021		
* James P. Nygaard, Jr.	Chief Financial Officer (Principal Financial and Accounting Officer)	February 9, 2021		
* Theodore J. Brombach	Director (Chairman)	February 9, 2021		
/s/ Paul Dabbar Paul Dabbar	Director	February 9, 2021		
/s/ Paul Gaynor Paul Gaynor	Director	February 9, 2021		
/s/ Colleen Sullivan Colleen Sullivan	Director	February 9, 2021		
/s/ Scott Widham Scott Widham	Director	February 9, 2021		
*By: /s/ Patrick C. Eilers Patrick C. Eilers Attorney-in-Fact				
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AND AFFILIATED PARTNERSHIPS

609 Main Street Houston, TX 77002 United States

+1 713 836 3600

Facsimile: +1 713 836 3601

www.kirkland.com

February 9, 2021

To: Power & Digital Infrastructure Acquisition Corp. 321 North Clark Street, Suite 2440 Chicago, Illinois 60654

Re: Power & Digital Infrastructure Acquisition Corp. Registration Statement on Form S-1

We are issuing this opinion in our capacity as special counsel to Power & Digital Infrastructure Acquisition Corp. (the "Company"), in connection with the registration pursuant to Rule 462(b) under the Securities Act of 1933, as amended (the "Act"), on a Registration Statement on Form S-1 originally filed with the Securities and Exchange Commission (the "Commission") on February 9, 2021 (the "462(b) Registration Statement") of up to an additional 5,750,000 units of the Company (the "Units"), with each Unit consisting of one share of Class A common stock, par value \$0.0001 per share (the "Common Stock"), of the Company and one-fourth of one warrant of the Company to purchase one share of Common Stock (the "Warrants"). The 462(b) Registration Statement relates to the Company's Registration Statement on Form S-1, as amended (File No. 333-252355) (the "Registration Statement"), initially filed by the Company on January 22, 2021 and declared effective by the Commission on February 9, 2021.

This opinion is being furnished in accordance with the requirements of Item 601(b)(5) of Regulation S-K promulgated under the Act.

For purposes of this letter, we have examined originals, or copies certified or otherwise identified to our satisfaction, of such documents, corporate records and other instruments as we have deemed necessary for the purpose of this opinion, including:

- (i) the Registration Statement;
- (ii) the 462(b) Registration Statement;
- (iii) the form of Underwriting Agreement (the "Underwriting Agreement") proposed to be entered into by and among the Company and Barclays Capital Inc. and BofA Securities, Inc. (the "Underwriters"), relating to the sale by the Company to the Underwriters of the Units, filed as Exhibit 1.1 to the Registration Statement;
- (iv) the form of Amended and Restated Certificate of Incorporation of the Company to be filed with the Secretary of State of the State of Delaware prior to the sale of any Units, filed as Exhibit 3.2 to the Registration Statement;

Beijing Boston Chicago Dallas Hong Kong Houston London Los Angeles Munich Palo Alto Paris San Francisco Shanghai Washington, D.C.

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- (iii) the form of Amended and Restated Bylaws of the Company filed as Exhibit 3.4 to the Registration Statement;
- (iv) the form of Unit Certificate, filed as Exhibit 4.1 to the Registration Statement;
- (v) the form of Class A Common Stock Certificate, filed as Exhibit 4.2 to the Registration Statement;
- (vi) the form of Warrant Certificate, filed as Exhibit 4.3 to the Registration Statement;
- (vii) the form of Warrant Agreement proposed to be entered into by and between the Company and Continental Stock Transfer & Trust Company, as warrant agent, filed as Exhibit 4.4 to the Registration Statement (the "Warrant Agreement");
- (viii) the corporate and organizational documents of the Company;
- (ix) the minutes and records of the corporate proceedings of the Company with respect to the issuance of the Units; and
- (x) the Registration Statement and the exhibits thereto.

For purposes of this letter, we have assumed the authenticity of all documents submitted to us as originals, the conformity to the originals of all documents submitted to us as copies and the authenticity of the originals submitted to us as copies. We have also assumed the genuineness of the signatures of persons signing all documents in connection with which this opinion is rendered, the authority of such persons signing on behalf of the parties thereto other than the Company, and the due authorization, execution and delivery of all documents by the parties thereto other than the Company. As to any facts material to the opinions expressed herein which we have not independently established or verified, we have relied upon statements and representations of officers and other representatives of the Company and others.

Subject to the assumptions, qualifications and limitations identified in this letter, we advise you that in our opinion:

(1) When the Units are delivered in accordance with the Underwriting Agreement upon payment of the agreed upon consideration therefor, the Units will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms under the laws of the State of New York.

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- (2) The shares of Common Stock included in the Units, or issuable upon the exercise or redemption of the Warrants in accordance with the Warrant Agreement, will be validly issued, fully paid and nonassessable when, as and if (i) the Units are delivered to and paid for by the Underwriters in accordance with the Underwriting Agreement, (ii) the Registration Statement shall have become effective pursuant to the provisions of the Act, (iii) appropriate corporate action shall have been taken to authorize the issuance and sale of such shares of Common Stock, (iv) a prospectus with respect to the Common Stock shall have been filed (or transmitted for filing) with the Commission pursuant to Rule 424(b) of the Act, (v) any legally required consents, approvals, authorizations and other orders of the Commission and any other regulatory authorities shall have been obtained and (vi) appropriate certificates representing the shares of Common Stock are duly executed, countersigned by the Company's transfer agent/registrar, registered and delivered against payment of the agreed consideration therefor in accordance with the Underwriting Agreement.
- (3) When the Units are delivered in accordance with the Underwriting Agreement upon payment of the agreed upon consideration therefor, the Warrants included in such Units will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms under the laws of the State of New York.

Our advice on every legal issue addressed in this letter is based exclusively on the internal laws of the State of New York and the General Corporation Law of the State of Delaware (under which the Company is incorporated).

Our opinions expressed above are subject to the qualifications that we express no opinion as to the applicability of, compliance with, or effect of (i) any bankruptcy, insolvency, reorganization, fraudulent transfer, fraudulent conveyance, moratorium or other similar law or judicially developed doctrine in this area (such as substantive consolidation or equitable subordination) affecting the enforcement of creditors' rights generally, (ii) general principles of equity (regardless of whether enforcement is considered in a proceeding in equity or at law), (iii) an implied covenant of good faith and fair dealing, (iv) public policy considerations which may limit the rights of parties to obtain certain remedies, (v) any requirement that a claim with respect to any security denominated in other than U.S. dollars (or a judgment denominated in other than U.S. dollars in respect of such claim) be converted into U.S. dollars at a rate of exchange prevailing on a date determined in accordance with applicable law, (vi) governmental authority to limit, delay or prohibit the making of payments outside of the United States or in a foreign currency or currency unit and (vii) any laws except the laws of the State of New York and the General Corporation Law of the State of Delaware. We advise you that issues addressed by this letter may be governed in whole or in part by other laws, but we express no opinion as to whether any relevant difference exists between the laws upon which our opinions are based and any other laws which may actually govern.

In addition, in providing the opinions herein, we have relied, with respect to matters related to the Company's existence, upon the certificates of officials of the Company, public officials, and others as we have deemed appropriate.

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We do not find it necessary for the purposes of this opinion, and accordingly we do not purport to cover herein, the application of the securities or "Blue Sky" laws of the various states to the issuance of the Units and the Warrants and shares of Common Stock included in the Units.

This opinion is limited to the specific issues addressed herein, and no opinion may be inferred or implied beyond that expressly stated herein. We assume no obligation to revise or supplement this opinion should the present laws of the State of New York or the General Corporation Law of the State of Delaware be changed by legislative action, judicial decision or otherwise.

This opinion is furnished to you in connection with the filing of the 462(b) Registration Statement and is not to be used, circulated, quoted or otherwise relied upon for any other purposes.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the 462(b) Registration Statement. We also consent to the reference to our firm under the heading "Legal Matters" in the prospectus contained in the Registration Statement. In giving this consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act of the rules and regulations of the Commission.

Very truly yours,

/s/ Kirkland & Ellis LLP

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in this Registration Statement of Power & Digital Infrastructure Acquisition Corp. (the "Company") on Form S-1 pursuant to Rule 462(b) under the Securities Act of 1993, as amended, of our report dated January 8, 2021, which includes an explanatory paragraph as to the Company's ability to continue as a going concern, with respect to our audit of the financial statements of Power & Digital Infrastructure Acquisition Corp. as of December 31, 2020 and for the period from December 29, 2020 (inception) through December 31, 2020 appearing in the Registration Statement on Form S-1, as filed (File 333-252355), of Power & Digital Infrastructure Acquisition Corp.

/s/ Marcum LLP

Marcum LLP New York, NY February 9, 2021