

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

May 20, 2022

Anastasios Arima Chief Executive Officer and Managing Director IperionX Limited 129 W Trade Street Suite 1405 Charlotte, NC 28202

> Re: IperionX Limited Amendment No. 1 to Registration Statement on Form 20-F Filed May 4, 2022 File No. 001-41338

Dear Mr. Arima:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Amendment No. 1 to Registration Statement on Form 20FR-12B

Risk Factors

We rely and will rely on independent contractors, consultants and other third parties to provide key development and operational services..., page 11

1. We note the general disclosure that you depend and will depend on subcontractors, consultants and other third parties to provide supply chain functions, including sourcing certain subcomponents and assemblies, and in process development activities. You further disclose that your operations and operating results may be adversely affected if you experience problems with your subcontractors, consultants or other third parties. Please expand your disclosures to discuss whether your business, projects, or operations are materially impacted by supply chain disruptions, especially in light of Russia's invasion of Ukraine. For example, discuss whether you have or expect to:

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- suspend the purchase, sale, or maintenance of certain items used to conduct or develop your business;
- experience higher costs due to constrained capacity or increased commodity prices or challenges sourcing materials or services; or
- be exposed to supply chain risk in light of Russia's invasion of Ukraine and/or related geopolitical tension.

Explain whether and how you have undertaken efforts to mitigate the impact and, where possible, quantify the impact to your business.

Item 7 Major Shareholders and Related Party Transactions, page 65

2. Please update to provide disclosure as of the most recent practicable date, to the extent that the information is known to the company or can be ascertained from public filings. We note that your ordinary shares have been listed on the Australian Securities Exchange. See Item 7 of Form 20-F.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

You may contact Joseph Klinko, Staff Accountant, at (202) 551-3824 or Jenifer Gallagher, Staff Accountant, at (202) 551-3706 if you have questions regarding comments on the financial statements and related matters. For questions regarding engineering comments, you may contact John Coleman, Mining Engineer, at (202) 551-3610. You may contact Timothy S. Levenberg, Special Counsel, at (202) 551-3707 or Loan Lauren Nguyen, Legal Branch Chief, at (202) 551-3642 with any other questions.

Sincerely,

Division of Corporation Finance Office of Energy & Transportation

cc: Jeanne McMullin, Esq., Chief Legal Officer