

PCA Case No. 2023-01

IN THE MATTER OF AN ARBITRATION

-before-

**THE COURT OF ARBITRATION CONSTITUTED
IN ACCORDANCE WITH THE INDUS WATERS TREATY 1960**

-between-

THE ISLAMIC REPUBLIC OF PAKISTAN

-and-

THE REPUBLIC OF INDIA

**TECHNICAL QUESTIONS FOR THE PARTIES
IN ADVANCE OF THE SITE VISIT**

COURT OF ARBITRATION:

**Professor Sean D. Murphy (Chairman)
Professor Wouter Buytaert
Mr. Jeffrey P. Minear
Judge Awn Shawkat Al-Khasawneh
Dr. Donald Blackmore**

SECRETARIAT:

The Permanent Court of Arbitration

15 April 2024

Further to paragraph 3.7 of Procedural Order No. 10, the Court of Arbitration invites the Parties to address the following technical questions during the site visit to the Neelum-Jhelum Hydro-Electric Plant scheduled between 23 April 2024 and 30 April 2024:

1. What are the range of circumstances where a gated spillway might be either beneficial or required for a run-of-river HEP on the Western Rivers of the Indus Basin?
2. What are the range of circumstances where an outlet below dead storage level might be either beneficial or required for a run-of-river HEP on the Western Rivers of the Indus Basin, in particular for the purpose of sediment control?
3. What are the range of circumstances where it might be either beneficial or required to locate, at a relatively low level, the power intake for the turbines of a run-of-river HEP on the Western Rivers of the Indus Basin?
4. What are the different methods that might be employed for determining the optimal pondage at a run-of-river HEP, such as pondage intended to be of a magnitude to meet fluctuations in the discharge of the turbines or pondage intended to be in a relationship to the minimum mean discharge at the site of a plant? How are such calculations performed?
5. What are the range of circumstances at a dam that would warrant an increase in freeboard height, taking into account the need to prevent overtopping and to allow for dam safety? Does keeping the crest gate top at full pond level prevent raising the water level artificially?