ALTERNATIVE DISPUTE RESOLUTION IN HYDROELECTRIC POWER PLANT CONSTRUCTION THROUGH A STANDING DISPUTE BOARD : A CASE STUDY OF ASAHAN 3 HEPP (2 X 87 MW)

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Abstract

Infrastructure construction projects frequently experience disputes between various involved parties, including project owners, contractors, and third parties. An example like Hydropower construction projects often encounter disputes due to their technical complexity and involvement of multiple stakeholders. Asahan No. 3 HEPP (2 x 87 MW), a national priority project in Indonesia, The construction of the Asahan 3 Hydropower Plant (2x87 MW) is intended to meet the electricity demand in Sumatra, supplying 1,477 GWh/year. The project comprises several lots, including: Lot I – Civil Works, Lot II – Mechanical Works, Lot III – Electromechanical Works, Lot IV – Transmission Works. The contract for Lot I - Civil Works was signed on January 15, 2019, under an FIDIC-based agreement, with a project duration of 48 months starting from the commencement date of March 3, 2019, and concluding on March 3, 2023. The execution of Lot I - Civil Works is managed by the Shimizu – Adhi Karya Joint Operation. During its implementation, it was noted that the Dispute Board adopted for the Lot I: Civil Works contract is an Ad-hoc Dispute Board. However, the contract for Lot I: Civil Works of the Asahan 3 Hydropower Plant follows the FIDIC Multilateral Development Bank (MDB) 2010 edition, which prescribes the use of a Standing Dispute Board for dispute resolution. Additionally, in accordance with the JICA Dispute Board Manual 2012, JICA strongly discourages the use of an Ad-hoc Dispute Board and recommends implementing a Standing Dispute Board. Data from the Dispute Resolution Board Foundation (2018) highlights that adopting a Standing Dispute Board significantly reduces the likelihood of disputes escalating to arbitration, with only 0.53% of disputes ending in arbitration compared to 14.05% for Ad-hoc Dispute Boards. Furthermore, the high frequency of contractor claims also supports the consideration of a Standing Dispute Board for Lot I: Civil Works of the Asahan 3 Hydropower Plant project.

Keywords: *construction dispute, hydropower project*, *alternative dispute resolution, ad-hoc dispute boards, standing dispute board, contract management*

Abstrak

Proyek konstruksi infrastruktur sering mengalami perselisihan antara berbagai pihak yang terlibat, termasuk pemilik proyek, kontraktor, dan pihak ketiga. Contoh seperti proyek konstruksi pembangkit listrik tenaga air seringkali menghadapi perselisihan akibat kompleksitas teknis dan keterlibatan banyak pemangku kepentingan. Asahan No. 3 HEPP (2 x 87 MW), sebuah proyek prioritas nasional di Indonesia, Pembangunan Pembangkit Listrik Tenaga Air Asahan 3 (2x87 MW) dimaksudkan untuk memenuhi kebutuhan listrik di Sumatra, menyuplai 1.477 GWh/tahun. Proyek ini terdiri dari beberapa bagian, termasuk: Lot I – Pekerjaan Sipil, Lot II – Pekerjaan Mekanis, Lot III – Pekerjaan Elektromekanis, Lot IV – Pekerjaan Transmisi. Kontrak untuk Lot I - Pekerjaan Sipil ditandatangani pada 15 Januari 2019, di bawah perjanjian berbasis FIDIC, dengan durasi proyek 48 bulan yang dimulai dari tanggal dimulainya pada 3 Maret 2019 dan berakhir pada 3 Maret 2023. Pelaksanaan Lot I - Pekerjaan Sipil dikelola oleh operasi bersama Shimizu – Adhi Karya. Selama pelaksanaannya, dicatat bahwa Dewan Sengketa yang diadopsi untuk kontrak Lot I: Pekerjaan Sipil adalah Dewan Sengketa Ad-hoc. Namun, kontrak untuk Lot I: Pekerjaan Sipil

dari Pembangkit Listrik Tenaga Air Asahan 3 mengikuti edisi FIDIC Multilateral Development Bank (MDB) 2010, yang meresepkan penggunaan Dewan Sengketa Berdiri untuk penyelesaian sengketa. Selain itu, sesuai dengan Manual Dewan Sengketa JICA 2012, JICA sangat melarang penggunaan Dewan Sengketa Ad-hoc dan merekomendasikan implementasi Dewan Sengketa Berdiri. Data dari Dispute Resolution Board Foundation (2018) menyoroti bahwa adopsi Dewan Sengketa Berdiri secara signifikan mengurangi kemungkinan sengketa meningkat ke arbitrase, dengan hanya 0,53% sengketa yang berakhir di arbitrase dibandingkan dengan 14,05% untuk Dewan Sengketa Ad-hoc. Selain itu, frekuensi klaim kontraktor yang tinggi juga mendukung pertimbangan Dewan Sengketa Berdiri untuk Lot I: Pekerjaan Sipil dari proyek Pembangkit Listrik Tenaga Air Asahan 3.

Kata kunci: *sengketa konstruksi, proyek pembangkit listrik tenaga air, penyelesaian sengketa alternatif, dewan sengketa ad-hoc, dewan sengketa berdiri, manajemen kontrak*

INTRODUCTION

The Asahan River originates from Lake Toba near the town of Porsea and flows into theStrait of Malacca. The Asahan No.3 Hydroelectric Power Project is planned in the upper reach of the river and will be located just below the existing Asahan No.2 hydropower plants. The Project area is in the Province of North Sumatra and is about 260 km southeast of Medan or about 30 km east of Lake Toba as shown in the Figure-I.

Figure I. Wilayah Proyek berada di Provinsi Sumatera Utara dan berjarak sekitar 260 km sebelah tenggara Medan atau sekitar 30 km sebelah timur Danau Toba

The Project was first identified in the study of the Overall Hydropower Development Plan on Lake Toba and Asahan River Basin prepared in 1972. During construction of the Asahan No.2 hydropower schemes whose objective was to produce aluminium, the Government of Indonesia intended to further develop the hydropower potential in the Asahan River basin including Lake Toba for public and domestic power supply.

As a result, a JICA feasibility study was carried out in 1981-1982, followed by the

detailed design funded by OECF in 1984-1988. Since these works were aimed at harnessing the hydropower potential at maximum to cover peak load for increasing power demand, a large dam was planned to be constructed with backing of rather big financial arrangement and large-scale resettlement of residents. However, due to these financial and social requirements the scheme was not realised.

More recently the power balance in the North Sumatra system has been extremely tight, and thus many factories in Medan metropolitan area were reducing their production scales or providing their own generators against unstable power supply conditions. Therefore, the shortage of power and energy supply was seriously influencing the economic activities in North Sumatra, and consequently this power shortage became one of bottle necks of economic growth in the area. Power shortage in the region and the high price of crude oil thus required the urgent implementation of the planned hydropower schemes.

Following the updated feasibility study, the Government of Indonesia (GOI) requested the Government of Japan (GOJ) to provide financial assistance for the Asahan No.3 Project. Consequently, JBIC Loan IP-526 was concluded between GOI and GOJ in March 2004 to implement the detailed design of the scheme including preparation of the tender documents.

The Project was also listed in the 2nd Phase Crash Program (FTP II) in 2010, which will develop an additional 10,000 MW of new power plants utilizing renewable energies. This Project is one of the national priority projects to be carried out by PLN. The Asahan No.3 Project is formulated as a run-of river type project having an installed capacity of 174 MW, harnessing the maximum plant discharge of 106.8 m^3/sec and a gross head of 196 m. The power plant will be operated for 24 hours following the operation of the existing Tangga power station.

The Procurement Status of Contracts for Main Works is summarized below. The following table presents the current Procurement Status for the Main Work's Contracts where Bids have been submitted.

Table 1.
The Current Procurement Status For The Main Work's Contracts Where Bids Have Been Submitted

No.	Contract Name	Date of Signing	Commencement Date	Name of Contractor
1.	Lot I Civil Works	15 Jan 2019	28 Mar 2019	Shimizu - Adhi Karya JO
2.	Lot II Metal Works	04 Sep 2019	1 Nov. 2019	Andritz Hydro Consortium
3.	Lot III Electromechanical Works	22 Sep 2020	2 Nov 2020	Mitsubishi Corporation
4.	Lot IV Transmission Line Works	16 Aug 2022	25 Oct 2022	PT Hasta Prajatama

Claims for Lot I – Civil Works of the Asahan 3 Hydropower Plant (2x87 MW) began on March 28, 2019, with physical progress achieved as of April 2020 reaching 10.20%, compared to the target of 17.68%, resulting in a negative deviation of -7.48%.

Based on actual conditions in the field, this progress deviation occurred due to several issues, including:

1. Limited access through land owned by PT INALUM (Persero),
2. The availability of additional land acquisition areas, and
3. Work stoppages caused by community groups, which delayed activities in critical path areas.

In response to these circumstances, the contractor leveraged the situation by submitting claims, amounting to 25 claims over the course of the 20 months since the project's commencement.

Given the high intensity of contractor claims, the Engineer has been assessed as taking resolution measures through technical and contractual evaluations, conducting direct negotiations with the Contractor on-site, and issuing Engineer's Determinations.

According to the General Conditions of FIDIC MDB Harmonised 2010 Edition Clause 3 (Engineer), Sub-Clause 3.5 (*Determinations*), the Engineer is required to review and approve claims submitted by the Contractor. However, the determinations issued by the Engineer are not final or binding on the parties. Consequently, the Contractor retains the right to dispute or object to the Engineer's decision at a later stage.

In light of this, resolving claims in Lot I – Civil Works solely through the Engineer's authority has proven to be ineffective. This is evident as, during the first 20 months of the project, 25 claims were submitted by the Contractor, only one claim reached an agreement on its value. The remaining claims have escalated into disputes that are challenging for

the parties to resolve.

The causes of conflict in the implementation of construction projects are varied and may differ between one project and another. Various studies have been conducted to identify the causes of conflict in construction projects. Semple, Hartman, and Jergeas (1994) identified several common causes of construction claims that often develop into disputes, such as changes in the scope of work, weather conditions, and site access restrictions. Pelled, Eisenhardt, and Xin (1999) found that multicultural project teams have the potential to cause conflicts.

Similarly, the study by Jaffar, Tharim, and Shuib (2011) classified conflict into three types: behavioral-related conflict, contractual-related conflict, and technical-related conflict. Behavioral issues include human interactions, personality, culture, and professional background among project team members. Other behavioral issues contributing to conflict include individual ambitions, frustration, dissatisfaction, desires for personal growth, communication, power dynamics, fraud, and differing beliefs, all of which can lead to conflicts in construction projects.

Contractual issues involve the definition, interpretation, and clarification of the contract. Kumaraswamy and Yogeswaran (1998), in their study, showed that the majority of construction conflict sources are related to contract issues, such as variations, time extensions, payments, technical specification quality, information availability, administration and management, unrealistic client expectations, and contract termination.

Lastly, technical-related conflicts arise from uncertainties or unclear information, technical clarifications, and similar issues. These typically involve issues such as design drawing, specification mistakes, construction method, and other related technical disputes..

Conflicts are inevitable in the execution of construction projects. Given the complexity of the work, the numerous stakeholders involved, and the variety of situations that may arise during project implementation, conflicts between parties are unavoidable. Therefore, specific management strategies for conflict resolution in construction projects are essential.

In a study by Acharya, Dai Lee, and Man Im (2006), six primary factors contributing to conflicts in construction projects in Korea were identified: differences in site conditions, local community interference, discrepancies in the assessment of work

changes, errors and omissions in design, excessive work volume, and ambiguous specifications. Meanwhile, Jaffar, Tharim, and Shuib (2011) classified the causes of conflict in construction projects into three categories: behavioral-related factors, contractual-related factors, and technical-related factors.

Examples of behavioral-related conflict factors include reluctance to seek clarification and poor communication. Contractual-related conflict factors include delays in site handover, delays in progress payments, and unclear contract terms. On the other hand, technical-related conflicts arise from the contractor's failure to properly execute the work or delays in instructions from the consultant or employer.

In addressing construction disputes, litigation in court is often regarded as a last resort due to its time-intensive, costly, and resource-demanding nature. Additionally, litigation carries the potential to strain or sever established business relationships between the involved parties. For this reason, Alternative Dispute Resolution (ADR) mechanisms are increasingly favored, with one prominent option being the Dispute Board.

In construction contracts, several Alternative Dispute Resolution (ADR) methods are available to parties involved in a dispute. The first step typically involves negotiation between the disputing parties. If negotiation fails to reach a mutual agreement, mediation may be pursued, where an impartial mediator facilitates discussions between the parties. However, both negotiation and mediation have limitations, particularly the absence of a binding final decision, which allows one party to potentially disregard the outcome.

Additionally, the parties may option for adjudication, a method recommended by FIDIC under Clause 21 of the FIDIC Red Book (2017), which provides for the establishment of a Dispute Avoidance and Adjudication Board (DAAB). The DAAB may comprise one or three members appointed jointly by the parties to mediate and resolve disputes arising on-site. The decisions of the DAAB are binding on both parties.

If either party is dissatisfied with the DAAB's decision, they may issue a Notice of Dissatisfaction (NOD) to the DAAB and the Engineer/Contract Administrator within 28 days of receiving the decision. Following the issuance of an NOD, the parties must attempt to reach an amicable resolution before proceeding to arbitration. Unless otherwise agreed, arbitration can commence on or after the 28th day following the issuance of the NOD, even if no amicable resolution has been attempted.

The advantages of dispute resolution through the DAAB include:

1. A swift and cost-effective resolution process.
2. Binding decisions grounded in the contract.
3. Minimal disruption to on-site progress.
4. Confidential proceedings, preserving the reputation of the parties.
5. Resolution by third-party experts with relevant construction expertise.

In FIDIC-based contracts, there are two types of Dispute Boards: the Ad-hoc Dispute Board and the Standing Dispute Board.

1. Ad-hoc Dispute Boards are used in the FIDIC Yellow Book and Silver Book, 2010 editions.
2. Standing Dispute Boards are applied in the FIDIC Red Book, 2010 edition; FIDIC Golden Book, 2008 edition; FIDIC Multilateral Development Bank (MDB), 2005/2006/2010 editions; and the FIDIC Red, Yellow, and Silver Books, 2017 editions.

The differences between the Ad-hoc Dispute Board and the Standing Dispute Board are as shown in the Table 2:

Table 2.
The differences between the Ad-hoc Dispute Board and the Standing Dispute Board

Item	*Ad Hoc* Dispute Board	Standing Dispute Board
The process of assigning DB members	The appointment is undertaken when Dispute is notified by either Party. Typically, after a Determination has been made and one or other of the Parties notifies dissatisfaction.	Appointment is done at the beginning of the project within a period defined in the Conditions of Contract and remain in place until the expiration of Defects Notification Period.
DB member Availability	DB members are not tied to the Project. Therefore, their appointment and the time for establishment of the DB depends on availability	DB members are contracted to the Project by the DB Agreement and are available to provide opinions and feedback regarding project issues that occur between Employer and Contractor DB members are better prepared to start the evaluation of any dispute immediately as they are required to visit the Project regularly and be cognizant of ongoing issues. Therefore, the process of evaluation may be faster.
Cost	Component costs are limited to non regular cost, such as Site visit fees, airfares, daily fee during site visit, drafting fee and decision reviewing. The periods for review and thus cost may be longer as the Members need to become conversant of the issues	The cost components consist of: **Non regular cost** Such as:, Board Hearing visits, review of submissions drafting fee and decision reviewing for each dispute referred **And** **Regular cost** Such as monthly retainer fee for each member and Site visit fees, airfares, daily fee during site visit for regular visit costs.
Time for Evaluation/ Determination	Potentially longer because the requirement to establish the DB for each dispute. In addition, the time required to become conversant with the issue may mean that the determinations take longer.	Faster because the members are already be familiar with the contract, the project and the personnel when a dispute is referred to them. Therefore, they are able to deal with the dispute in an informed, efficient and timely manner because there is no learning curve.

This research is necessary to address the challenges faced in the implementation of Alternative Dispute Resolution (ADR) in construction disputes. A comprehensive theoretical and empirical study on the effectiveness of the Standing Dispute Board, along with the factors influencing it, will provide significant contributions to optimizing the resolution of construction disputes. Furthermore, this study is expected to offer practical recommendations for stakeholders in the construction industry to enhance the efficiency and success of the dispute resolution process through the Standing Dispute Board.

METHODOLOGY

This study employs a qualitative-descriptive method aimed at analyzing the effectiveness of the Standing Dispute Board in resolving construction disputes in the Asahan 3 Hydroelectric Power Plant Construction Project (2 x 87 MW). The research uses both primary and secondary data.

Primary data were obtained through in-depth interviews with parties directly involved in the dispute resolution process via the Dispute Board, including Engineer, representatives from PT PLN (Persero), and contractors. Additionally, observations were conducted on the dispute resolution process to understand the dynamics of interactions and negotiations.

Secondary data were collected from official documents related to the Asahan 3 Hydroelectric Power Plant Construction Project, including contracts, meeting minutes, agreements, progress reports, claim documents, evaluation reports, and internal company reports. The analysis also includes a study of amendments and changes to the terms of payment agreed upon during the dispute resolution process, as reflected in the amended contract documents agreed upon by both parties. These amendments involved adjustments to contract clauses, reverting them to align with FIDIC MDB 2010 standards, which incorporate the Standing Dispute Board. These documents provide insights into how complex contractual agreements can be adapted to achieve mutually beneficial resolutions.

The results of this analysis are expected to provide a deeper understanding of the effectiveness of the Standing Dispute Board in resolving construction disputes, especially in the context of large-scale and complex infrastructure projects.

This qualitative approach was chosen because it offers flexibility in identifying

critical factors that might not be captured through quantitative methods. Moreover, this method allows for a detailed exploration of the interactions and negotiations that occur during the dispute resolution process, providing a comprehensive perspective on the dynamics of dispute resolution outside of litigation pathways

RESULTS AND DISCUSSION

The Effectiveness of the Standing Dispute Board in Resolving Construction Disputes

Standing dispute board (DBs) have proven to be exceptionally effective. The DRBF records indicate the process has been employed on over 2,700 projects, aggregating some US$270 billion in construction costs. Owner studies and analysis of the DRBF database show 85-98% of recommendations/decisions have not gone on to further arbitration or litigation, delivering substantial cost and time savings

The presence of a dispute board has had a prophylactic effect, deterring the assertion of contractor claims and disputes. On construction projects having DBs, the average number of disputes taken to the Board has been only 1.2 per project. This is considerably less than the average number of disputes taken to court or arbitration on projects without Boards.

Dispute board hearings are typically conducted right on the project site. Board members are familiar with the project by virtue of their having attended regular quarterly status meetings and having reviewed monthly progress reports. They were selected in the first instance based upon their experience in construction of similar projects. Dispute board procedures are informal and simplified in comparison with court or arbitration proceedings. Attorneys are encouraged not to attend hearings and, if they do attend, they are rarely permitted to make presentations or participate in the proceedings. As a result, Dispute board hearings are short and do not disrupt construction or adversely impact job progress. The Standing Dispute Board with three members chosen jointly by the owner and the contractor. Another type uses a single advisor, typically used for smaller projects or shorter duration. Both the contractor and owner agree on a single advisor to work as a neutral party to help resolve construction disputes. Other forms include Combined Dispute Boards and Dispute Avoidance Boards. All standing Boards offer significant dispute avoidance benefits. Some Boards feature non-binding recommendations and others feature binding decisions, depending on the contract and legal jurisdiction.

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Dispute board costs range from 0.05% of final construction contract cost, for relatively dispute-free projects, to a maximum of 0.25% for difficult projects with disputes. Considering only projects that refer disputes to the DB or that had difficult problems, the cost ranges from 0.04% to 0.26% with an average of 0.15% of final construction contract cost, including an average of four dispute recommendations.

Alternative dispute resolution through a dispute board has become increasingly important as litigation is considered inefficient in terms of time and cost and has the potential to damage business relationships between parties (Huda et al., 2023). As stipulated in Indonesian Law No. 30 of 1999 concerning Arbitration and Alternative Dispute Resolution, the process of resolving business disputes through mediation by establishing a dispute board offers efficiency and speed, as well as providing a win-win solution for the parties involved, making it a preferred alternative to litigation (Kurniawan et al., 2023).

The effectiveness of alternative dispute resolution through a dispute board depends not only on the process but also on the involvement of dispute board, who play a crucial role in maintaining good relations between the parties. In the context of this project, mediation successfully mitigated the risk of escalating conflicts.

Contactor Claim's

Based on the Monthly Progress Report for the December 2020 period submitted by the Engineer, it was noted that 25 (twenty-five) claim notifications had been submitted by the Contractor to the Engineer over the course of the 20 months of the project. As a result of these claims, the Dispute Board (DB), consisting of three members—Mr. J. Glover (Chairman), Mr. V. Jurowich, and Mr. G. Smith—issued 5 formal opinions

regarding claims that were acceptable to both the contractor and the project owner (PLN).

Changes to Contract Clauses

The Lot I Contract: Civil Works for the Asahan 3 Hydroelectric Power Plant (2x87 MW) was initially based on the General Conditions of the FIDIC Harmonised Edition 2010, which stipulates the use of a Standing Dispute Board. However, in practice, certain contract clauses related to the Dispute Board were modified and included in the Specific Provisions, changing the Dispute Board's nature to Ad-hoc. Therefore, to reactivate the Standing Dispute Board, it is necessary to amend the relevant clauses by reinstating the provisions in line with the General Conditions of the FIDIC Harmonised Edition 2010.

Additionally, according to the Lot I Contract: Civil Works for the Asahan 3 Hydroelectric Power Plant (2x87 MW), *Particular Conditions Part A – Contract Data*, and *Specific Provisions* Clause 20.2 on the *Appointment of the Dispute Board*, it is stated that the appointment of Dispute Board members is to occur 28 days after one Party notifies the other Party to resolve a dispute using the Dispute Board. However, under the FIDIC Harmonised Edition 2010 standard, the Dispute Board appointment should take place between 28 to 56 days after the Commencement Date (Figure-II).

Considering that the Standing Dispute Board was activated approximately 21 months after the Contract commencement, amendments to these clauses are necessary. The revised provisions would stipulate that the appointment of Dispute Board members must occur within 56 days after the Contract Amendment concerning the Standing Dispute Board is approved by JICA. Proposed amendments to the contract clauses are as follows (Table-II) :

Table 3. Particular Conditions, Part A – Contract Data

Original

Conditions	Sub-Clause	Data
Date by which the DB shall be appointed	*20.2*	*28 days after a Party gives notice of its intension to refer to a Dispute to a DB*

Amendment

Conditions	Sub-Clause	Data
Date by which the DB shall be appointed	*20.2*	*Within 56 days of the Contract Amendment No. 1 being approved by JICA*

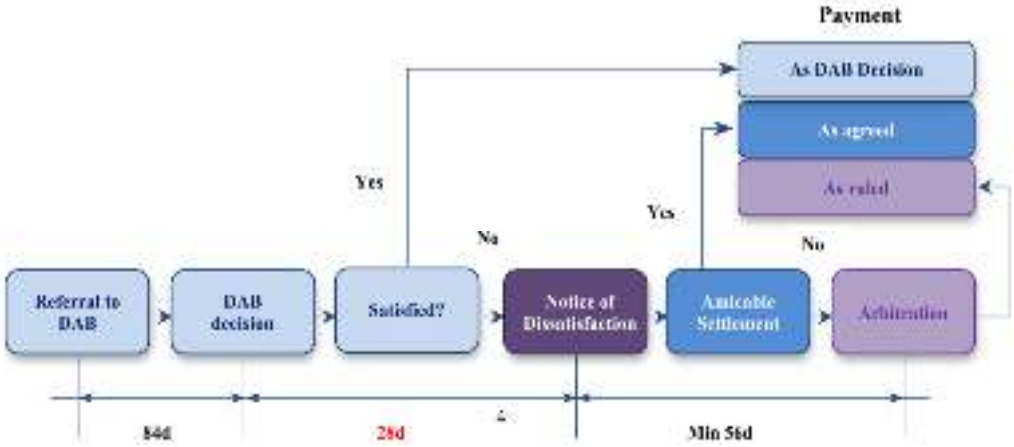

Figure 2. Timetable For Planning The Process From Referral To Decision

The amendment to change the Ad-hoc Dispute Board to a Standing Dispute Board can be carried out based on mutual agreement between the Parties, taking into account effectiveness, the latest FIDIC contract standards, the JICA Dispute Board manual, and the intensity of Contractor claims. This amendment will require modifications to the Contract Clauses by reinstating the provisions of those Clauses in accordance with the FIDIC MDB 2010 standard, which adopts the Standing Dispute Board.

CONCLUSION AND SUGESTION

Based on research findings regarding alternative dispute resolution through mediation by forming a dispute board in resolving construction disputes in the Asahan 3 Hydropower Plant Project (2 x 87 MW), it can be concluded that mediation through the establishment of a dispute board is an effective method, particularly for large-scale infrastructure projects. This mediation successfully resolved disputes related to claims and potential conflicts without resorting to lengthy and costly litigation processes. The success of mediation through the dispute board in this project was supported by the voluntary participation of the parties involved, the competence of neutral and experienced mediators, and the openness of information from both sides.

The complexity of construction disputes, which often involve significant technical and financial aspects, can be effectively managed through a dispute board. In the case of the Asahan 3 Hydropower Plant Project (2 x 87 MW), mediation through a dispute board enabled the resolution of disputes related to cost and time claims while maintaining the business relationship between PT PLN (Persero) and the Contractor. This highlights the

advantage of mediation through a dispute board in preserving good working relationships in long-term projects.

The application of a Standing Dispute Board in the Lot I Contract – Civil Works of the Asahan 3 Hydropower Plant Project (2 x 87 MW) aims to ensure that contractual resolutions can be carried out effectively by DB members who are continuously present at the Asahan 3 Hydropower Plant project site. Moreover, given the high intensity of claims by the Contractor, the Standing Dispute Board is expected to have a positive impact on the execution of the Lot I Contract – Civil Works of the Asahan 3 Hydropower Plant Project, including:

1. The claim resolution process can be conducted more quickly and efficiently because the DB members are directly involved in monitoring the implementation of the construction contract on-site, enabling more accurate and valid decision-making.
2. Field dispute resolution can be managed more easily as the DB members can directly and continuously carry out investigations, consultations, and evaluations of the Parties' perspectives on contract interpretation, thus enabling disputes to be resolved without resorting to arbitration.
3. Early mapping and mitigation of potential Contractor claims can be carried out, reducing the intensity of Contractor claims.
4. With independent DB members who have strong understanding and experience in the implementation of FIDIC-based contracts, these members can serve as guides for the ideal implementation of FIDIC-based contracts on-site.

However, another issue that remains is the legal uncertainty regarding the enforcement of Dispute Boards decisions in different jurisdictions, which, as previously explained in Dispute Boards and International Construction Arbitration, is the most limiting aspect of dispute boards, making the decisions rendered therein less valuable for the winning party than an arbitral award or a court judgement. Issues regarding enforceability raise doubts as to the efficiency of the DAAB's decisions, and the dispute board system in general. Despite these limitations, dispute resolution through a standing dispute board remains a preferred choice for resolving construction disputes due to its flexibility, time efficiency, and lower costs compared to formal litigation.

Sugestion

1) Transparency in Dispute Resolution Discussions

The parties involved in dispute resolution must prioritize transparency to achieve fair and balanced solutions. Transparency allows for a realistic evaluation of each claim and provides both parties with the opportunity to make informed decisions and arrive at a win-win solution.

2) Early activation of the Standing Dispute Board clause into contract

DB should start in the beginning of the project before disputes arise, the activation of the Dispute Board (DB) is carried out to address contractual issues within the project that cannot be resolved between the Contractor, Engineer, and Employer, with the aim of achieving an amicable settlement and minimizing dispute resolution through Arbitration. The activation of the Dispute Board is intended to provide independent and credible consultation, opinions, and decisions for the Parties regarding any contractual issues arising from misunderstandings in the interpretation of contract clauses.

In accordance with the Specific Provisions, Clause 20.4 *Obtaining Dispute Board's Decision*, the Dispute Board is authorized to conduct investigations, consultations, and make decisions on any contractual issues that arise, with the goal of reaching a mutually binding agreement between the Parties. This agreement becomes binding if no objections are raised by the Parties within 28 (twenty-eight) days after the decision is issued.

Furthermore, the resolution of disputes through the Dispute Board is also regulated under Indonesian Law No. 2 of 2017 concerning Construction Services (Jasa Konstruksi).

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