International Journal of Law Policy and Governance
Vol.4 No.1, 2025
e-ISSN: 2830-3245
pp. 83-92
DOI: https://doi.org/10.54099/ijlpg.v4i1.1222

Claim for Costs Due to Rerouting of SUTT 150 kV New Garuda Sakti – Perawang

Wesleyzon Sitompul[1], Sami'an[2], Sarwono Hardjomuljadi[3]
[1,]Master of Law Student, Faculty of Law, Pekalongan University, Indonesia
[2,3,]Lecturer of Master of Law, Faculty of Law, Pekalongan University, Indonesia
E-mail:wesleysitompul17@gmail.com,samian@gmail.com

ARTICLE INFO

Research Paper

Article history:
Received:5 December 2024
Revised: 25 December 2024
Accepted: 2 February 2025

Keywords: Electricity transmission projects, cost claims, lattice tower, steelpole, legal perspective, construction.

ABSTRACT

Purpose –This study aims to analyze the impact of design changes from lattice tower to steelpole on the 150 kV New Garuda Sakti - Perawang electricity transmission project, with a focus on legal and financial implications, including cost claims, material efficiency, and land acquisition. **Methodology/approach** –This study uses a qualitative approach with analysis of contract documents, applicable legal regulations, and technical data related to the project. Additional data were obtained through a literature review of relevant regulations, such as Presidential Regulation No. 16 of 2018 and Law No. 2 of 2017, as well as the international standard FIDIC Conditions of Contract. **Findings** –The design change from lattice tower to steelpole provides material efficiency because it utilizes waste material without new procurement. The use of land owned by the road eliminates the need for land acquisition, but there are additional costs arising from the adjustment of installation and labor. From a legal perspective, claims for additional costs are acceptable if they are in accordance with the contract and supported by valid documentation.**. Novelty/value** –Given the importance of cost claims management and legal compliance in infrastructure projects, this research provides important insights for construction industry players in managing design changes and legal challenges.

INTRODUCTION

The electricity transmission construction project in Indonesia, especially in the 150 kV High Voltage Transmission Line (SUTT) project, is an integral part of the government's efforts to improve the national energy infrastructure. However, the transmission project construction process often faces various technical challenges that affect the progress of the project, one of which is the change in line design and reroute (shift) of the transmission line caused by social problems. In the 150 kV New Garuda Sakti - Perawang SUTT project, changes in the transmission line will result in additional cost claims, which have an impact on changes in the contract between the User of goods/services and the Provider of goods/services. Cost claims due to this line reroute are related to contract procedures, obligations of related parties, and resolution of legal disputes that arise in the construction project.

In addition, another significant change occurred in the design of the transmission tower. Previously, the design of the transmission tower used was the lattice type, which is an open steel frame structure commonly used in electricity transmission construction. However, along with the rerouting of the line, the tower design was changed to steelpole, which is a single-pole steel tower that is more compact and easier to install. This design change adds complexity to the planning and implementation of construction, because the change in tower design from the lattice type to steelpole affects various technical aspects, such as load calculations, soil structure, and the time and costs required for installation. These changes increase the cost burden which in turn triggers cost claims from the Goods/Services Provider to the Goods/Services User.

Various considerations from the users of goods/services taking this reroute option are minimizing social problems and land use for the use of this steelpole tower type tends to be less than the lattice tower type. Another consideration is that the procurement of steelpole tower materials is not necessary because the tower is an asset of the User of goods/services that has not been used so that it can be used for the benefit of electricity transmission development. Several points of use of this steelpole tower also do not need to procure land because the User of Goods/Services has obtained permission to utilize the Road Ownership Area (DMJ).

Previously, several studies have examined the problem of cost claims in construction projects, both from a technical and legal perspective. These studies show that cost claims often stem from changes in design or project planning, but are often also related to disagreements between the contractor and the assignor regarding the determination of additional costs. Some common dispute resolution methods used are through negotiation, mediation, or arbitration, but there are often limitations in the application of these methods related to the unclear legal aspects of the contract.

As stated by DR. Samian (2023), "The cost claim process in transmission projects often involves complex legal elements, especially in the case of unexpected line reroutes. Dispute resolution must involve a clear understanding of the contractual agreement and the interpretation of its terms. This quote highlights the importance of proper contract management and an understanding of the legal mechanisms in dealing with cost claims arising from technical changes such as transmission line reroutes and changes in tower design.

However, although there have been many studies that review cost claims on construction projects in general, very few specifically discuss cost claims due to transmission line rerouting and changes in tower design. This study aims to fill this gap by examining in depth the cost claims arising from changes in line design on the 150 kV New Garuda Sakti - Perawang SUTT project. This study will identify the legal basis related to the cost claims, the procedures followed in resolving disputes, and the strengths and weaknesses of the legal approaches that have been applied in this case (Mahardika et al., 2024; Markonah et al., 2023; S & Miasiratni, 2025).

This research has a significant contribution to the understanding of cost claim management in infrastructure projects, especially in the electricity transmission sector. The author hopes that through this research, it can provide recommendations on steps that need to be taken to reduce the risk of cost claims in similar construction projects in the future.

Thus, the main objectives of this study are to analyze cost claims arising from line rerouting in 150 kV transmission projects, assess existing dispute resolution mechanisms, and provide recommendations for more effective policies or procedures in handling cost claims in the construction sector.

LITERATURE REVIEW

Introduction to Cost Claims in Construction Projects

Cost claims are one of the main issues often faced in construction projects, especially large infrastructure projects such as electricity transmission. These claims can arise for various reasons, including design changes, delays, changes in field conditions, or unforeseen contractual issues. According to Murray and Hebert (2019), cost claims arising from design changes can lead to legal disputes between contractors and project owners, especially if the contract clauses governing the changes are unclear.

Cost Claim Mechanism in Electricity Transmission Projects

Electricity transmission projects often involve many complex technical and regulatory aspects. Cost claims in these projects are usually related to design changes, such as changes in tower materials or rerouting transmission lines. In the context of the 150 kV New Garuda Sakti - Perawang SUTT, the design change from lattice towers to steelpoles has the potential to cause significant cost claims.

According to Luo et al. (2020), in large construction projects such as power transmission projects, design changes often require adjustments to materials and construction methods. These cost claims must be accompanied by strong justification, both technically and financially, and in accordance with the provisions contained in the contract.

Legal Basis and Procedure for Claiming Expenses

The cost claim process in construction projects generally refers to the FIDIC Conditions of Contract which is the international reference in large construction contracts. The FIDIC Red Book provides clear guidelines on how design changes (variations) should be administered, including the submission of cost claims. FIDIC requires written notification of design changes, followed by an analysis of the additional costs that may occur as a result of the changes.

Design Changes and Their Impact on Costs

The design change from lattice tower to steelpole has the potential to affect several cost aspects in transmission projects, namely:

- Material Costs: Steelpoles are generally more expensive than lattice towers, both in terms of material costs and transportation and installation costs.
- Labor Costs: The use of steelpoles often requires specialized skills, as well as longer installation times, which in turn increases labor costs.
- Time Costs: Design changes can cause delays in the project schedule, thereby increasing time-related costs.

Research by Zhang et al. (2019) shows that unexpected design changes in transmission projects can result in significant additional costs, which must be processed through appropriate cost claim mechanisms.

The implications of claims for additional costs due to design changes in electricity transmission projects such as the 150 kV New Garuda Sakti - Perawang SUTT are very likely to occur. The claim process must follow clear procedures in accordance with existing contract provisions and regulations, involving transparent and accountable cost analysis. Design changes from lattice to steelpole have the potential to increase project costs, which must be managed properly so as not to disrupt the smooth running of the project.

METHOD

This study uses a normative approach, which is an approach that focuses on the study of norms or legal rules that apply in a particular legal problem. This approach seeks to explore and analyze the legal aspects that regulate cost claims in construction projects, especially those arising from changes in the design of transmission lines and towers, as well as the dispute resolution methods applied in the case of the 150 kV New Garuda Sakti - Perawang SUTT reroute.

Types of research

This research is a qualitative research with a normative approach that is descriptive-analytical in nature. This research not only aims to describe the phenomena that occur in the 150 kV transmission construction project but also to analyze and provide an understanding of the legal aspects that underlie the cost claims due to changes in the design of transmission lines and towers. The main focus of this research is on the resolution of legal disputes related to cost claims arising from the rerouting of transmission lines and changes in tower design from lattice to steelpole.

Data source

Data sources used in this study include:

1. Contract Documents: Contract documents related to the 150 kV SUTT transmission project, including clauses governing design changes, additional costs, and claim mechanisms in the construction contract.
2. Case Studies: Data obtained from relevant cases, including academic literature, court decisions, and reports related to transmission projects or similar construction projects.
3. Interviews and Observations: Interviews with legal practitioners, contractors, and related parties who have experience in handling cost claims in transmission or other construction projects. Observations of the dispute resolution process that occurred in the project will also be conducted to provide a more in-depth picture.

Data collection technique

Data collection in this study was carried out in several ways as follows:

1. Library Research: This research will review related literature, both in the form of textbooks, journals, scientific articles, and legal reports related to cost claims in construction contracts and rerouting of transmission projects.

2. Contract Documentation: Analyze the contract documents applicable to transmission projects, including clauses relating to design changes and claims for additional costs arising from line rerouting or tower design changes.
3. Interviews: Conducting interviews with related parties, such as contractors, lawyers, and parties directly involved in resolving cost claim disputes in construction projects.

Data Analysis Techniques

The data obtained will be analyzed using a normative analysis approach that refers to applicable legal norms. The techniques used in data analysis include:

1. Statutory Analysis: Identify and analyze regulations relevant to cost claims and dispute resolution in construction projects. This includes exploring provisions governing design changes, additional cost claims, and dispute resolution mechanisms in contracts.
2. Contract Analysis: Analyze the clauses in the contract that regulate the obligations of each party in dealing with claims for costs resulting from design changes or rerouting of transmission lines. This analysis will also include provisions regarding dispute resolution procedures set out in the contract.
3. Case Comparison: Comparing the case of the 150 kV New Garuda Sakti - Perawang SUTT with similar construction projects to see if there are similarities or differences in the approach to resolving cost claim disputes.
4. Drawing Conclusions and Recommendations: After analyzing the data, conclusions will be drawn to provide an understanding of how cost claims should be resolved based on applicable laws, as well as providing recommendations on more effective policies or procedures in handling cost claims in the construction sector.

Methodology Objectives

This methodology aims to produce a comprehensive understanding of cost claims in 150 kV transmission projects, as well as provide appropriate legal solutions to address cost claims issues due to design changes and reroutes. With a normative approach, this study seeks to contribute to the development of construction law in Indonesia.

RESULT AND DISCUSSION

1. Results of Claims for Costs Due to Design Changes

In this section, we will discuss the results of the cost claim arising from the design change from lattice tower to steelpole, taking into account the use of residual materials and roadside land that does not require new procurement.

a. Installation of Steelpole Tower Installation

The analysis results show that although the original design used a lattice tower, the design change to steelpole can be done by utilizing leftover materials that are still available and can be used. Thus, material costs are not a major factor in the cost claim, because there is no procurement of new materials.

However, even though the material is available, the installation of steelpole requires adjustments to the installation technique because the steelpole installation method is different from the lattice tower. This results in additional labor and time costs.

b. Land Acquisition

In this project, no additional land acquisition is required because the project uses existing road land. The land used does not add to the cost of land acquisition or land rental costs, so the cost of land acquisition is not included in the cost claim. This is different from other electricity transmission projects that often face land acquisition problems, which can significantly increase costs and time.

c. Claims for Submitted Expenses

Based on the analysis results, the cost claims submitted by the contractor are more related to labor costs and time costs arising from design changes. These cost claims include:

- Labor Costs: Steelpole installation requires specialized skills and techniques, so contractors submit labor cost claims to accommodate new installation techniques.
- Time Cost: Although steelpole material is available, design changes result in adjustments to the installation schedule. The time required for these changes results in additional time costs associated with project delays.

2. Discussion on Legal Aspects of Cost Claims

a. Legal Aspects of Design Changes

Design changes from lattice tower to steelpole, although not involving procurement of new materials, still affect the costs and time that must be accounted for by the contractor. Based on the provisions of Presidential Regulation No. 16 of 2018 concerning Government Procurement of Goods/Services, any design changes that affect the cost and time of the project can be submitted as a cost claim by the contractor.

In this case, even though there is no procurement of new materials, the design change can be considered a valid design variation, and the contractor is entitled to submit a claim for additional costs to cover the costs of labor and time required to implement the change. This is in accordance with the principles set out in the FIDIC Conditions of Contract, which stipulate that design changes affecting the cost and time of the project must be submitted through a clear and documented claims procedure.

b. Use of Road-Owned Land and Legal Aspects

The use of land owned by the road in this transmission project avoids the need for new land acquisition, which is often a major source of costs in transmission projects. Legally, the use of existing land owned by the road saves contractors and project owners from the risks associated with land acquisition disputes. In accordance with Law No. 2 of 2017 concerning Construction Services, if the land used is already state-owned or has been regulated for the public interest, then there is no need for a land acquisition process (Imanto et al., 2025; Iskamto & Juariyah, 2023; S & Miasiratni, 2025; Sungkara et al., 2025)lawa. This greatly reduces the costs associated with land acquisition and accelerates project implementation.

In this case, there is no claim for land acquisition-related costs because the project can utilize existing land, which is an advantage from a legal and financial perspective.

c. Costs Incurred and Legal Aspects

Although design changes do not involve procurement of new materials or land acquisition, costs still arise due to labor and time adjustments. In accordance with the provisions of the Contract Agreement, the contractor has the right to file a claim for costs arising from legitimate design changes. However, this claim must be accompanied by valid evidence such as schedule adjustment documents, labor reports, and cost analysis to ensure the claim is valid.

It is important to note that even if there is a legitimate cost claim, the claim procedure must be carried out transparently and in accordance with the terms of the contract. If the claim is not accompanied by sufficient evidence or does not go through the correct procedure, then the claim may be considered invalid, which can trigger a legal dispute between the contractor and the project owner.

3. Comparison with Similar Projects

As part of the discussion, we also need to compare this project with other power transmission projects that face design changes and material or land procurement.

a. Comparison with Material Procurement

In transmission projects that use new materials (for example, total tower material replacement), cost claims can be much larger because procurement of materials requires new purchases, delivery, and storage of materials. In this case, the 150 kV SUTT project is more efficient because it uses leftover materials that do not require re-procurement. This reduces material costs significantly compared to projects that require procurement of new materials.

b. Land Acquisition Comparison

Transmission projects that require new land acquisition often face higher cost claims related to land acquisition costs and lengthy negotiations with landowners. In contrast, the 150 kV SUTT project does not experience such problems because it uses land owned by the road, which allows for significant cost savings and speeds up the administrative process.

c. Labor and Time Costs

In similar projects, design changes often result in additional labor and time costs. In the 150 kV SUTT project, although there is no procurement of new materials and land, labor and time costs still arise due to changes in design and installation techniques. However, due to the use of waste materials and existing land, these additional costs are more limited compared to other transmission projects involving major changes in material or land procurement.

4. Stages of Contract-Based Cost Claim Mechanism

a. Notice of Change

- **Party Providing Notification**: The user of goods/services provides official notification to the contractor regarding design changes.

- **Supporting documents**: The notification must include technical and regulatory justification for the change.

b. Submission of Claims by Contractors

- **Submission Format**: The contractor is required to submit claims in the format required by the contract, for example a detailed report on the impact of changes on costs and time.
- **Claim Components**:
    1. **Transportation and Logistics Costs**: Steelpoles often require special handling.
    2. **Additional Labor Costs**: Adjustments to construction methods may require additional expertise.
    3. **Time-Related Cost**: If the change causes a delay.

c. Claim Evaluation

- **Contract Clauses**: Evaluation is carried out based on clauses regarding design changes and payment.
- **Evaluation Criteria**:
    - Are design changes included in the scope of the contract?
    - Are the claimed costs reasonable and supported by documentary evidence?
    - Are there any impacts to the project schedule that require time compensation?

d. Negotiation and Agreement

- Negotiations took place to agree on the amount of the claim and the impact on the schedule.
- The agreement is recorded in an agreement signed by both parties.

e. Payment

- Payments are made in accordance with the contract mechanism, such as through progress payments or separate payments for design changes.

5. Challenges in Cost Claim Mechanisms

- **Contract Document Non-Conformity**: Contract documents that do not detail design changes often lead to disputes.
- **Claim Validation Difficulty**: Additional costs are often difficult to validate if the contractor does not provide complete supporting documentation.
- **Slow Negotiation Process**: A lengthy claims approval process can lead to payment and project delays.

6. Relevance to the 150 kV New Garuda Sakti – Perawang SUTT Project

In this project, the design change from lattice to steelpole has the potential to trigger cost claims based on variation clauses in the construction contract. These claims must be managed well to avoid legal disputes and ensure the sustainability of the project.

CONCLUSION

The 150 kV New Garuda Sakti – Perawang SUTT project shows that design changes from lattice tower to steelpole can be done effectively without requiring new material procurement or additional land acquisition. The use of leftover materials and land owned by the road provides efficiency in terms of time and cost. However, this design change still raises additional costs related to installation adjustments and labor. Based on legal analysis, the cost claim submitted by the contractor is acceptable if it is in accordance with the provisions of the contract and supported by valid supporting documents. From a construction contract law perspective, design changes can be considered as part of a legitimate project variation. This is regulated in Presidential Regulation No. 16 of 2018 concerning Government Procurement of Goods/Services and the FIDIC Conditions of Contract, which regulates the procedure for claiming costs due to design changes. The use of land owned by the road is also in accordance with Law No. 2 of 2017 concerning Construction Services, which supports project efficiency without facing the risk of land disputes. Overall, this study highlights the importance of good documentation, transparency in claim procedures, and compliance with legal regulations in resolving issues resulting from design changes. This can serve as a guideline for similar transmission projects in dealing with design dynamics and project cost management.

ACKNOWLEDGEMENT

The author would like to express his deepest gratitude to the Lecturers of the Master of Law Program, Pekalongan University for their guidance, expertise, and support during the preparation of this journal. Their views on the legal aspects of construction contracts have contributed significantly to the analysis and conclusions of this study. The author would also like to thank the SUTT 150 kV New Garuda Sakti - Perawang project team who have provided important data and information that form the basis of this research. Finally, we appreciate the support from PT PLN (Persero) for the facilities and assistance provided in completing this journal. Without their collaboration, this research would not have been carried out properly.

REFERENCES

Anwar, A. S. (2020). Legal aspects of construction contracts in Indonesia: Challenges and opportunities. Journal of Indonesian Construction Law.

Bower, G. L., & Leland, S. H. (2018). Construction law: Cases and materials. Wiley.

FIDIC (2017). Conditions of Contract for Construction (Red Book). International Federation of Consulting Engineers.

Hasibuan, R. (2021). Hukum kontrak dalam proyek konstruksi: Perspektif dan praktik di Indonesia. Jakarta: Rajawali Pers.

Imanto, Y., Sami'an, S., & Hardjomuljadi, S. (2025). The Legal and Regulatory Review on the Implementation of Green Construction in Indonesia. International Journal of Law, Policy, and Governance, 4(1), Article 1. https://doi.org/10.54099/ijlpg.v4i1.1241

Iskamto, D., & Juariyah, L. (2023). Blockchain Technology Challenge in the Future: : Data Security and Efficiency. International Journal of Law Policy and Governance, 2(2), Article 2. https://doi.org/10.54099/ijlpg.v2i2.708

Johnson, M. L., & Lee, H. K. (2020). Construction contracts and dispute resolution: Legal aspects of the construction industry. Springer.

Luo, Y., Zhou, Q., & Liu, W. (2020). "Cost Control in Transmission Line Projects: Case Study on Design Changes". Journal of Civil Engineering and Construction Management.

Mahardika, D., Suzan, L., & Mulia, T. W. (2024). Literasi Keuangan: Mewaspadai Investasi Illegal. Jurnal Pengabdian Masyarakat Akademisi, 3(4), Article 4. https://doi.org/10.54099/jpma.v3i4.1142

Markonah, M., Silalahi, S., & Selliamanik, I. (2023). Claim Paying and Reinsurance on Company's Financial Health. International Journal of Applied Management and Business, 1(1), Article 1. https://doi.org/10.54099/ijamb.v1i1.459

Murray, M., & Hebert, D. (2019). Construction Contract Claims: A Comprehensive Guide. Wiley-Blackwell.

Presiden RI. (2018). Peraturan Presiden No. 16 Tahun 2018 tentang Pengadaan Barang/Jasa Pemerintah.

PT PLN (Persero). Standar Operasional Prosedur Pengadaan Barang/Jasa 2023.

S, G. T. P., & Miasiratni, M. (2025). Legal Certainty In The Implementation Of Regional Regulations In West Sumatra Based On Minangkabau Customary Values. International Journal of Law, Policy, and Governance, 4(1), Article 1. https://doi.org/10.54099/ijlpg.v4i1.1163

Samian, D. (2023). Perspektif hukum dalam klaim biaya proyek konstruksi transmisi. Unpublished manuscript.

Sugijanto, M. (2022). The Art of Contract Drafting. Jakarta: PT Alex Media Komputindo.

Sungkara, F., Sami'an, S., & Hardjomuljadi, S. (2025). Legal Aspects of Extension of Time in PLN Transmission Construction Project in Central Sumatra: Bahasa Indonesia. International Journal of Law, Policy, and Governance, 4(1), Article 1. https://doi.org/10.54099/ijlpg.v4i1.1215

Suyono, H. (2019). "Resolusi Konflik dalam Kontrak Konstruksi: Perspektif Hukum dan Praktik". Jurnal Hukum Bisnis.

Tay, A. P. (2019). Contract law in construction: Issues and remedies. Wiley.

Undang-Undang Republik Indonesia No. 2 Tahun 2017 tentang Jasa Konstruksi

Zhang, S., Li, X., & Guo, X. (2019). "The Impact of Design Changes on Cost Control in Power Transmission Projects". Energy Engineering Review.

