

WATU IRENG SUKSES: FUTURE CHALLENGES OF COAL BUSINESS IN JAMBI PROVINCE

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Keywords

*Business; Future Challenges;
Companies*

ABSTRACT

PT Watu Ireng Sukses is a mining concession located in Jambi Province. It began operating in mid-2021 despite obtaining permits from 2019 that will end in 2032. The decision to start operations in 2021 was due to good prices that made it possible to start operations that year. In 2021-2023 the price of Coal was at its peak, and in 2022, precisely in March, with ICI-1 reaching \$308.31. The steps include identifying major coal companies through thorough research, collecting data related to production, market share, mine location, infrastructure and other factors, then continuing with an analysis of the challenges they face, such as regulatory changes, decreased market demand and environmental problems. Responding to significant price changes, the Indonesian government took advantage of the situation in increasing government revenue from the Coal sector. Exactly 5 months after a very significant price increase, the government conducted an evaluation to increase the country's profits from this potential. PT WIS has sufficient coal reserve potential to expand additional production capacity, but all of it must go through processes such as project feasibility evaluation and environmental impact feasibility evaluation.

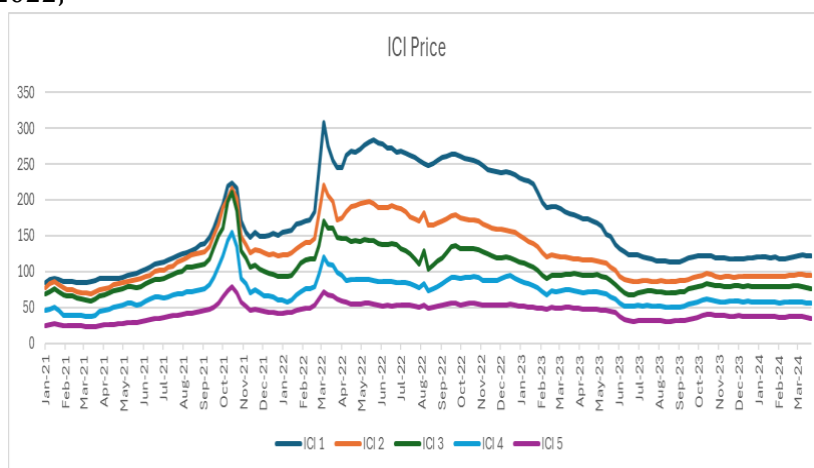
INTRODUCTION

PT Watu Ireng Sukses is a mining concession located in Jambi Province. It began operating in mid-2021 despite obtaining permits from 2019 that will end in 2032. The decision to start operations in 2021 was due to good prices that made it possible to start operations that year. In 2021-2023 the price of Coal was at its peak, and in 2022, precisely in March, with ICI-1 reaching \$308.31. The extremely high price was partly due to the war that occurred between Russia and Ukraine at the end of February 2022, which made the supply of Coal unable to meet high demand because several countries re-opened their taps to use Coal due to the cessation of gas supply that is usually flowed by the Russian state. A domino effect occurs, resulting in an increase in production carried out by all coal-producing countries to meet the demand and benefit from the event. This happened in Indonesia, one instance of which was in Jambi Province, where the increased demand for trucks to transport coal from the mine to the port led to intense competition among the surrounding community to take advantage of the opportunity by purchasing trucks to rent out to coal mining companies. However, this also had negative consequences, including the high volume of coal-laden truck traffic causing congestion on national roads in Jambi Province. The traffic congestion prompted significant pressure from the Jambi people for the Jambi Provincial government to take decisive action to address the issue.

Before 2021, mining in Jambi Province had indeed run with the same obstacle related to residents' rejection of the use of national roads by coal mining business actors. However, due to the volume of trucks that can still be regulated regularly, this problem is not a significant problem. Since 2012, the Jambi government, which has experienced several changes of governors, has planned to build a special coal road as a solution to the problem of coal transportation, but until 2022 there has been no movement at all. Early in 2023, the Jambi Provincial Government appointed 2 Contractor companies to carry out the special road construction work.

One of the things that triggered the implementation of development was the peak of protests from Jambi residents which resulted in the government getting pressure for the realization of concrete solutions. PT WIS responds to this as an opportunity in the future and needs careful planning in dealing with these obstacles and potentials. In 2021 there was an increase in global coal demand which resulted in coal prices rising periodically. Many businesses take advantage of this by increasing production targets in 2022. At the beginning of 2022, the Indonesian government closed the Coal export due to the depletion of Coal inventory at several Steam Power Plants (PLTU) throughout Indonesia due to coal mining business actors being more interested in selling Coal abroad and this resulted in not meeting the Coal purchase target made by the PLTU. If this is not addressed, there is the potential for power outages that will have a negative impact on the Indonesian economy. This forces business actors to help supply coal to several coal-fired power plants spread throughout Indonesia, especially those who have difficulty supplying coal.

The Indonesian government closes export taps for 1 month from January 1, 2022 to January 31, 2022. This had an impact on a significant increase in global coal prices which at that time was in need of a sufficient supply of coal. Indonesia as one of the largest coal exporters certainly greatly affects prices when the coal supply from Indonesia is closed. When the export license was reopened, Indonesian coal business actors benefited more from a number of price increases that occurred after the closure of export licenses by the Indonesian government. Coal prices continue to climb from the 2022 period and peak in March 2022;



Gambar 1. Camera Sensor Performance

Notes:

- ICI 1 : 6,500GAR (6,200NAR)
- ICI 2 : 5,800GAR (5,500NAR)
- ICI 3 : 5,000GAR (4,600NAR)
- ICI 4 : 4,200GAR (3,800NAR)
- ICI 5 : 3,400GAR (3,000NAR)
- ICI Price from January 2021 – March 2024

There is an important event behind the significant increase in coal prices in the March 2022 period, namely the invasion by the Russian against Ukraine. The invasion was met with massive

opposition from all citizens of the world and many condemned it. One form of condemnation of the Russian is the massive restrictions given to the Russia, especially from European countries. But Russia is not only silent, restrictions applied to the Russian make the Russian state stop the supply of gas distributed to several European countries so that there is a massive panic and makes some countries re-open coal-fired electricity generators that have long been abandoned. This has resulted in a very significant increase in coal prices until March 2022 due to the sudden increase in coal demand.

METHODS

With a Case Study approach, we can identify several major coal companies in Jambi Province and analyze the challenges they face and the strategies they use to overcome them. The steps include identifying major coal companies through thorough research, collecting data related to production, market share, mine location, infrastructure and other factors, then continuing with an analysis of the challenges they face, such as regulatory changes, decreased market demand and environmental problems. Next, an analysis of the strategies implemented by each company is carried out, such as product diversification, technology investment, and corporate social responsibility, followed by an evaluation of the success of these strategies. Based on this analysis, conclusions are drawn about the company's response to future challenges and recommendations are provided to better meet these challenges.

RESULTS

New Indonesian Government Policy

Responding to significant price changes, the Indonesian government took advantage of the situation in increasing government revenue from the Coal sector. Exactly 5 months after a very significant price increase, the government conducted an evaluation to increase the country's profits from this potential. On August 15, 2022, precisely the government issued a regulation related to coal sales royalties called PP No. 26 of 2022.

Table 1. Royalti Updated based on PP No 26 2022

Quality	Interval of HBA	Fare
GAR <4200	HBA < \$70	5%
	$\$70 \leq \text{HBA} < \90	6%
	HBA \geq \$90	8%
GAR > 4200 - 5200	HBA < \$70	7%
	$\$70 \leq \text{HBA} < \90	8.50%
	HBA \geq \$90	10.50%
GAR \geq 5200	HBA < \$70	9.50%
	$\$70 \leq \text{HBA} < \90	11.50%
	HBA \geq \$90	13.50%

In the regulation there are several changes including the percentage of tariffs from each quality of coal and progressive based on the Reference Coal Price Level (HBA). This has received many different responses from Indonesian mining players, the price is certainly quite burdensome for companies that have made long-term planning with long tariffs so that the change makes several companies re-evaluate the economics of their mines.

Coal In Jambi Province

The same thing happened in coal mines throughout Indonesia, the same thing happened in the Jambi Province mine. This significant increase in prices has made some mines that were originally not operating can finally operate again at very supportive prices. In addition, it also invites many new investors to invest in coal in the Jambi area. This really makes the economy around Jambi Province rise quite significantly with a very massive growth in coal production in the last few months after prices rose. The series of positive things was also followed by negative things that occurred which resulted in rejections from residents around the mine and also residents affected either directly or indirectly from coal mining activities in Jambi Province. Various protests were carried out by residents who were directly affected such as the impact of environmental pollution to road damage due to coal mining activities. Worse yet, due to the increase in coal prices, the volume of trucks operating to transport coal from the mine to the port increased very significantly, which made severe congestion at several points of the National Road, both provincial roads;



Gambar 1. Road Congestion in Jambi Province Due to Coal Transportation Activities

As a result of the congestion, it greatly disrupts residents' activities and hampers economic activities. In addition, there were also several cases of ambulances carrying sick people who had to be restrained by the traffic jam, which eventually the patients brought had to fail to be handled until they died on the way.

Citizen protests continued until the Jambi provincial government took action in addressing the problems that occurred as a result of the coal mining activities. The Jambi Provincial Government moved quickly by determining investors and contractors in the construction of the special Coal road by targeting the special Coal road must be completed immediately and during the construction process Coal mining business actors are still allowed to go through national roads with time restrictions and strict supervision from various parties.

However, Jambi residents were still not satisfied with the decision so the Ministry of Energy and Mineral Resources intervened to overcome the problem. Several meetings were held between mining business actors and the Ministry of Energy and Mineral Resources and also representatives of residents who still have not provided concrete solutions in overcoming congestion that occurs as a result of coal activities. It is conceivable that the road capacity is intended for 4000 units of trucks but there are actually 12,000 units of trucks operating and it can be said that the volume is beyond the existing capacity so that congestion on the road is difficult to avoid and will certainly occur with operational time restrictions implemented by the Jambi government.

The Jambi Provincial Government targets the end of 2024 for special coal roads to be operational. In addition, the Jambi Provincial Government has also prepared other solutions related to the transportation of coal by water. So far, transportation through water has not been too glimpsed by coal mining business actors in Jambi due to the ineffectiveness of activities through water and many silting locations in the Batanghari River area which resulted in the foundering of ships carrying coal. However, due to the increasing frequency of roads closed due to protests from residents, waterways began to be glimpsed and some business actors have prepared infrastructure for coal delivery activities by water.

Taking advantage of coal price rising

Coal mining business actors take advantage of the moment of the highest price increase in history by maximizing production targets based on the maximum target allowed based on the feasibility study of each mine. There are several companies that conduct re-feasibility studies to increase production capacity in response to price changes that occur. With this price increase, business actors dare to increase their respective stripping ratio (SR) standards. Originally only SR 5 they dared to increase up to 2x with the aim of increasing the amount of reserves that could be mined. Increasing the SR can relieve the Company when there is a price decline in the future so that the Company can increase profits from the quantity of coal mined much more.

Policies to Boost Coal Infrastructure Development

In dealing with the problems that exist in the Coal business in Jambi Province, the Jambi Government conducts periodic evaluations to ensure the process of solving problems from the Coal business will be resolved. One of the concerns of the Jambi provincial government is the construction of a special coal road which is projected as the best solution in overcoming the problem of coal transportation in Jambi. In addition, there are also several solutions that have been running but have no positive impact, including the Construction of Jebak Port initiated by the Jambi Provincial Government. Why not have a positive impact? Because to be able to reach Jebak Port, the trucks still have to go through national roads which until now have not solved the problem of using national roads for coal transportation.

In addition, solutions must be determined related to the use of river routes as an alternative route for transporting coal to ports downstream. One solution that has been widely echoed is related to solving the problem of river siltation, namely dredging shallow areas and regularly monitoring the silting area and periodic repairs. But until anytime the problem will always repeat as long as 2 things have not been resolved, the problem is related to illegal gold mining in the upstream area that mines using pumps in the river area, it has the impact of scouring the river area and the eroded area becomes sedimentary material that will be deposited and cause siltation. However, when the Jambi provincial government can maximize these 2 routes, it is not impossible that it can solve problems that have been long overdue, its completion, and also have an impact on improving the economy of Jambi Province, the impact of better coal transportation.

Operational of PT Watu Ireng Sukses

Getting a concession permit in 2019 did not make PT WIS dare to start operational activities because in 2019 coal prices were at a fairly low point with coal content in PT WIS which on average was low calorie. The price of low-calorie coal had reached \$16.94, a very low price since 2017 which occurred in November 2020. In the feasibility study conducted by PT WIS requires a minimum price of coal to be able to operate PT WIS is \$ 24 so that when the price is below that it will not be good for the conservation of coal reserves in PT WIS because if forced then PT WIS must work in a low SR area and this is not good in future operational activities which will be exposed to a greater SR load. In coal mining operations, the stability and suitability of SR must be maintained in order to achieve the Company's profits in accordance with the projections made.

PT WIS started operations in 2021 with a production target of 100,000 Mt for one year. Due to the initiation process that did not run smoothly in the first year, it could only produce as much as 84,000 Mt or 84% achievement. PT WIS faces 2022 with a target of being enlarged 10x to 1,080,000 Mt, a very high target compared to the target in the previous year which was only 100,000 Mt and it was not achieved. However, preparations in 2022 are much better, PT WIS prepares everything from production equipment capacity, employee capacity to stockpile capacity. The thing that needs to be considered is the stockpile capacity because many things need to be arranged in such a way that the cycle in and out of coal can be regular so that there are no obstacles due to stockpile management. PT WIS must prepare sufficient capacity as it is known that capacity is the amount of resource inputs available relative to

output requirements over a particular period of time¹. So when PT WIS sets an increase in production targets which are output, additional input is needed to meet these targets. And it is known that the target is 10x the target in the previous year, therefore it is necessary to evaluate the readiness of inputs to pursue this output.

A number of inputs that must be prepared include:

1. Production unit
2. Infrastructure
3. Human Resources

In addition, PT WIS must ensure that a number of production increases already have marketing objectives so as to avoid the accumulation of coal inventory which has the potential to hamper the production cycle due to full coal storage. During the 2022-2023 period, PT WIS maximized its production plan with an extraordinary achievement of exceeding it;

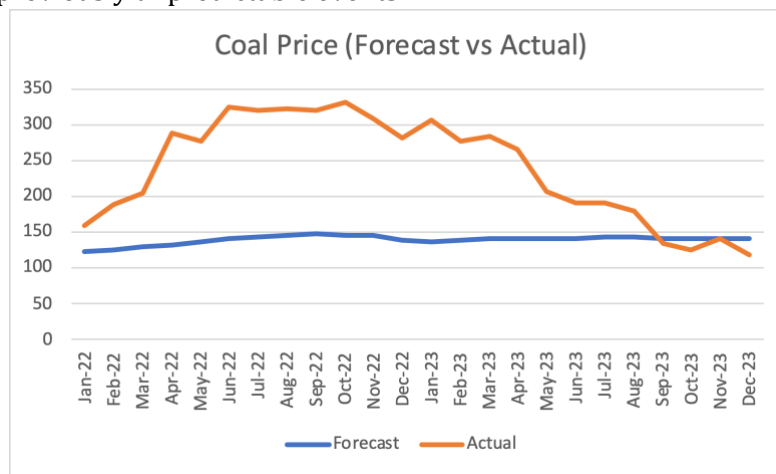
Table 1. PT WIS Performance 2022-2023

Year 2022			
Periode	Coal Production	Hauling to Port	Sold to Costumers
January	48,758.0	38,972.4	0.0
February	106,058.8	53,159.3	43,766.0
March	89,059.7	129,023.0	81,124.1
April	71,714.1	84,103.6	126,626.3
May	52,375.9	28,982.7	48,463.5
June	95,564.0	101,495.2	77,284.9
July	121,279.5	88,172.3	83,103.8
August	124,451.2	148,043.8	83,126.4
September	126,419.6	114,162.3	177,807.5
October	133,436.5	130,153.4	117,658.8
November	122,456.2	78,060.7	148,720.2
December	158,395.6	111,198.2	91,752.6
TOTAL	1,249,969.1	1,105,526.7	1,079,434.2
Year 2023			
Periode	Coal Production	Hauling to Port	Sold to Costumers
January	67,980.2	145,867.1	86,847.3
February	138,357.7	138,903.1	94,858.0
March	187,438.9	78,242.0	160,238.2
April	71,834.3	90,156.2	99,997.3
May	100,237.4	143,944.6	124,624.8
June	54,425.1	89,531.9	60,426.4
July	85,878.7	126,556.0	211,643.9
August	121,579.3	123,668.2	120,449.6
September	131,300.7	88,700.8	88,571.3
October	133,013.7	14,623.8	3,167.7
November	129,912.2	3,508.9	3,372.5
December	99,418.5	17,838.6	17,891.9
TOTAL	1,321,376.6	1,061,541.2	1,072,088.8

The most influencing obstacle is related to the constraints of transporting coal to the port which must be stopped a lot due to demonstrations from residents in Jambi Province. So that in the 2023 period, PT WIS tries several solutions, including using waterways, but waterways also experience obstacles due to shallow river water due to the long drought. The majority of mining in Jambi is very dependent on national roads which when the national road is closed will have an impact on production which will be restrained due to the accumulation of coal stocks which if there is no outgoing coal cycle is delivered to the port. In addition, Jambi Coal buyers will only make purchases for Coal that has arrived at the Port so that when the flow of Coal to the Port is hampered automatically, the Company's financial cycle is also restrained due to the absence of cash in.

Price Forecast

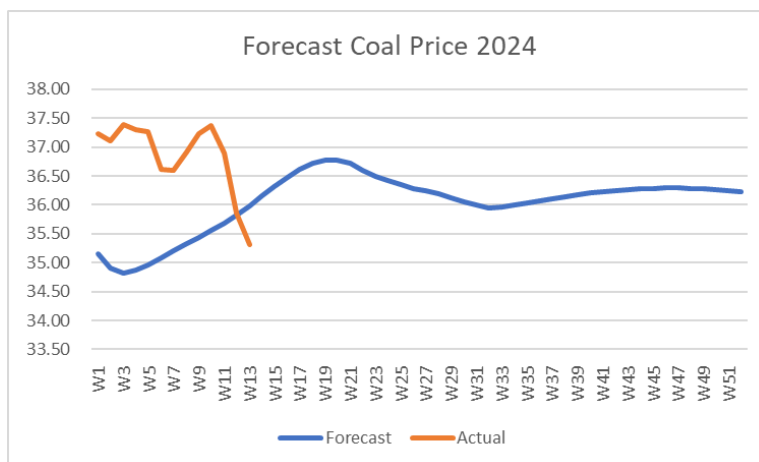
Before PT WIS planned in 2022 and 2023, PT WIS had conducted a forecasting study related to coal prices for the next 2 years, namely 2022-2023 and found significant differences with actual market prices due to several previously unpredictable events.



Gambar 2. Coal Price (Forecast vs Actual)

These deviations tend to make PT WIS unprepared in the face of market prices that are suddenly so high and to make planning changes is not easy to do because it requires a lot of preparation in each change. Due to PT WIS's unpreparedness in facing the price increase, PT WIS failed to maximize these conditions to maximize the Company's profits and when the Company was about to make changes to the plan, prices had slowly decreased.

Coal prices that occur in the 2022-2023 period are unusual so that if used as a basis for forecasting, it will create biased and inaccurate results. So that in making price forecasts for the next year, it is necessary to sort out basic data in the calculation. To avoid biased data, PT WIS uses the basis for price calculation as a forecast from June 2023, where the price trend has returned to normal and the price increase and decrease is not too significant. From the forecast picture that has been made, an evaluation has been carried out on the actual for the first 3 months, namely until March 2024;



Gambar 3. Forecast Coal Price

Based on the forecast chart, it shows the price allusion in Week 13 is at a price of \$ 35.99 and the actual price is obtained at \$ 35.31. The average price in 2024 is expected to be \$ 36.

Future Challenge

With various potentials that exist, PT WIS will try to maximize it. Currently, PT WIS does not use a 24-hour operational policy because the operation of transporting coal to the port via national roads is limited in time, to avoid overcapacity so that the current equipment capacity has not been maximized in accordance with its designation.

Type	Bucket Capacity	Pdty	PA Std	UA 12 Hr	UA 24 Hr
PC 30 Ton	2.2	200	90%	25%	50%
PC 40 Ton	2.5	230	90%	25%	50%

Type	Qty	Production 12 Hr	Production 24 Hr
PC 30 Ton	3.00	709,560.00	1,419,120.00
PC 40 Ton	2.00	543,996.00	1,087,992.00
	Fleet Capacity	1,253,556.00	2,507,112.00

With the completion of the construction of a special coal road at the end of 2024, it will be one of the opportunities for PT WIS to maximize all existing equipment capacity. However, to maximize all these capacities, PT WIS needs to prepare several things, including:

1. Feasibility study
2. Environmental Impact Analysis (AMDAL)
3. Infrastructure
4. Human Resource
5. Market Analysis

These things must be considered and reprocessed. If indeed PT WIS will increase production capacity and preparations must be carried out from a long time so that all processes will be carried out in stages. The question is whether it is the right decision for PT WIS to expand the production capacity when the special coal road has been completed? What is the appropriate price in responding to planning changes in production capacity which also requires quite a lot of capital to achieve this capacity. Are Coal Reserves still viable when production capacity is raised? What about production SR?

CONCLUSION

PT WIS has sufficient coal reserve potential to expand additional production capacity, but all of it must go through processes such as project feasibility evaluation and environmental impact feasibility evaluation. It should be noted that all of this requires careful observation to avoid losses due to planning errors. When the special coal road has been completed, it does not mean that PT WIS will be free to ship coal to the port because PT WIS is only one of hundreds of coal mining companies that will also take advantage of the opportunity. There will be many potential obstacles and problems that may occur after the use of the special road. These problems need to be studied and prepared mitigation in dealing with them. Because if the decision making error will have an impact on the Company's losses and it is very avoidable.

REFERENCES

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International Journal of Social Service and Research (IJSSR)

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