Thar Coal & Energy Board

Government of Sindh

No TCEB/Registrar/2-1/2014/CS-Phase.III/Review
August 07, 2023

DECISION OF THAR COAL & ENERGY BOARD IN THE MATTER OF MOTION FOR LEAVE FOR REVIEW OF CONTRACT STAGE TARIFF DATED 25TH JULY, 2023 FOR EXPANSION OF OPEN CAST LIGNITE MINE OF SINDH ENGRO COAL MINING COMPANY (SECMC) FROM CAPACITY OF 7.6 MTPA TO 11.2 MTPA AT BLOCK II THAR COALFIELDS, DISTRICT THARPARKAR, SINDH, PAKISTAN

Thar Coal & Energy Board

Thar Coal & Energy Board

Government of Sindh

No TCEB/Registrar/2-1/2014/CS-Phase.III/Review
August 07, 2023

Decision of Thar Coal & Energy Board in the Matter of Motion for Leave for Review of Contract Stage Tariff dated July 25, 2023 for Expansion of Open Cast Lignite Mine of Sindh Engro Coal Mining Company from Capacity of 7.6 Mtpa to 11.2 Mtpa at Block II Thar Coalfield, District Tharparkar, Sindh, Pakistan

Thar Coal Tariff Determination Committee

Constituted in Pursuance of Rule 3(1) of Thar Coal Tariff Determination Rules, 2014

Dr Fahad Irfan Siddiqui
Member

Mr Ammar Habib Khan
Member

Mr Khadim Hussain Channa
Managing Director -TCEB

Thar Coal & Energy Board

Thar Coal & Energy Board

Government of Sindh

No TCEB/Registrar/2-1/2014/CS-Phase.III/Review
November 17th Nov ,2023

In pursuance of the Rule 10(5) of the Thar Coal Tariff Determination Rules, 2014, it is certified that the Thar Coal & Energy Board, on the recommendation of the Thar Coal Tariff Determination Committee, has approved the Decision regarding Motion for Leave for Review of Determination of Contract Stage Tariff for 11.2 Mtpa Capacity at Block II Thar Coalfields, District Tharparkar, Sindh, Pakistan, appended in the following pages.

Jalaluddin Mahar
Managing Director
Thar Coal & Energy Board

Thar Coal & Energy Board

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List of Acronyms used in Determination Order

BCM	Bank Cubic Meter
CAR	Contractors' All Risk
COD	Commercial Operations Date
CPI	Consumer Price Index
CSA	Coal Supply Agreement
ECC	Economic Coordination Committee
EC	External Consultants
EPC	Engineering, Procurement & Construction
EPP	Energy Purchase Price
GCV	Gross Calorific Value
GoS	Government of Sindh
HSE	Health, Safety & Environment
IA	Implementation Agreement
IB	Inter-burden (waste rocks)
ICB	International Competitive Bidding
ICC	In-pit Crushing & Conveying
IDC	Interest During Construction
IRR	Internal Rate of Return
KIBOR	Karachi Inter-Bank Offer Rate
LC	Letter of Credit
LDs	Liquidated Damages
LHV	Lower Heating Value
LIBOR	London Inter-Bank Offer Rate
MJ / Kg	Mega Joules per Kilogram
MSF	Mine Service Facilities
MTPA	Million Tonnes Per Annum
MW	Megawatt
MT	Million Tonnes
MYT	Multi Year Tariff
NCV	Net Calorific Value
NEPRA	National Electric Power Regulatory Authority
NOC	No Objection Certificate
NTDC	National Transmission & Despatch Company
O&M	Operations & Maintenance
OB	Overburden (waste rocks)
OGRA	Oil & Gas Regulatory Authority
PKR	Pakistani Rupee
PPA	Power Purchase Agreement
RCOD	Required Commercial Operations Date
RMB	Chinese Renminbi
RoE	Return on Equity
RoEDC	Return on Equity During Construction
SBLC	Stand By Letter of Credit
SBP	State Bank of Pakistan
SECMC	Sindh Engro Coal Mining Company
SEPA	Sindh Environmental Protection Agency
TCEB	Thar Coal & Energy Board
TT & OD	Telegraphic Transfer & On Demand
USD	United States Dollar

THAR COAL AND ENERGY BOARD
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The Thar Coal & Energy Board, as per the respective notifications of the Government of Sindh and Government of Pakistan and in accordance with Section 5(m) of Thar Coal & Energy Board Act, 2011 is the coal-pricing agency. This determination is conducted in accordance with the authority vested with TCEB and pertains to the Motion for Leave for Review Under Rule 10(8) of the Thar Coal Tariff Determination Rules, 2014 ("Review Petition") read with all enabling provisions of the law, as filed by Sindh Engro Coal Mining Company (SECMC) against the Determination of Contract Stage Tariff for mine of 11.2 MTPA, at Block II Thar Coalfields, District Tharparkar, Sindh, Pakistan, dated July 25th, 2023. The Review Petition has been assessed and reviewed in accordance with the parameters and guidelines established under the Thar Coal Tariff Determination Rules dated November 27th, 2014, as notified by Government of Sindh. The coal tariff, so determined, shall form the basis of fuel cost for downstream power generation to be determined by NEPRA.

1. Tariff Sought by Petitioner

The Petitioner has submitted a motion for leave for review of the determination of contract stage tariff, that was approved by the TCEB Board on 25th July, 2023. The Petitioner requested a review of certain aspects of the determination, requesting a revised tariff in light of updated information. The Review Petition as submitted has been reviewed by TCTDC, and response to salient concerns raised by the Petitioner are discussed below.

2. Pre-COD Sales

The Petitioner postulates that 0.37 million tons of coal was sold to LEPCL, and be deemed as Pre-COD Sales, amounting to roughly US$ 15.69 million (c. PKR 4.5 billion). Similarly, the Petitioner also postulates that 0.62 million tons of coal was sold to LEPCL, as there was surplus availability of coal, and the designated buyer, Thal Nova was not operational. However, this was done post COD of Phase-II, due to this, it can be recognized as coal sold as part of continuous operations, and not Pre-COD. Similarly, 0.18 million tons of coal sold to Thal Nova for testing purposes may also be classified as Pre-COD sales and incorporated accordingly in subsequent petitions.

The Petitioner also requests that sales of 0.43 million tons of coal to LEPCL that were made post 17th February 2023, be recognized as Pre-COD sales for the current expansion phase – however, the same has not been billed to date. It is petitioned that the same coal be sold at the first-year tariff for Phase-III. The same is deemed acceptable on the condition that any Pre-COD sales made further till the COD of project being adjusted against total project cost, and consequently reduce overall debt levels being assumed by the project, and must be incorporated in subsequent petitions.

It is to be noted here that reduction in debt level, and increased reliance on Pre-COD sales to fund expansion of the mine would result in overall reduction in project cost, and consequently lower tariff. Furthermore, reduced debt load at this level would also result in greater savings for the end-user, as interest rates are at their all-time high right now, so incremental interest payments can be avoided through such structuring.

TCTDC reiterates that any additional sales of coal made to LEPCL, or any other entity must be adjusted against Project Cost, and covered during the Financial Close petition, and consequently actualized at COD Stage. Overall external debt assumed must be adjusted downwards accordingly.

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3. Power Generation Mix

TCTDC strongly endorses the view that the mine should be utilizing auxiliary power, and reducing overall energy costs in the process, while further indigenizing the costs as well. TCEB will be providing necessary support for necessary transition for the same as has been detailed in the EPC Stage Determination for Phase-III of the project. It is understandable that the transition process has its own timeline, and in view of the same, we may extend the deadline from 12 months to the date at which COD is achieved. Without a firm deadline, the incentives may not be in place to accelerate the process, thereby it is important to push towards this goal in a timely manner.

Indexations for power generation remains unchanged at 85-15, Diesel-Solar ratio. The Petitioner should strive to attain greater levels of efficiency to meet the desired mix in this case.

4. Mining Technology

In response to TCTDC's assessment, in Contract stage determination, dated 1st June 2023, that the Petitioner can enhance operational efficiency by managing the Overburden (OB) from Phase II operations to external dumps while maintaining a balance between external and internal dumps, the Petitioner has put forth counterarguments in the Review Petition.

The Petitioner asserted that the existing in-pit dump has limited area and a capacity of 30 M BCM/year. Consequently, an influx of excessive traffic to the in-pit dump may lead to congestion and pose safety risks to berms and slopes of the pit. The Petitioner has submitted the revised haul route plans and traffic mobilization plans to support their arguments. Furthermore, the Petitioner emphasized that the procurement of larger capacity shovels and trucks is facing delays due to import restrictions because of heightened sovereign risks and restricted availability of foreign currency liquidity for non-essential imports. Such delays in procurement has led to inadvertent delays in project execution.

TCTDC reckoned the congestion problem at In-pit Dump due to excessive traffic and recalculated the dump truck requirements, and further notes the restricted ability of the Petitioner to import equipment given overall macroeconomic constraints and heightened sovereign risk. In view of the same, some adjustments are being considered in terms of equipment deployment given overall constraints.

However, it is important to note that all equipment requirements, including dump trucks, shovels, and other machinery, will be reevaluated for the operational period of Phase III at the COD stage. The machinery requirement for development and operational period of Phase III (11.2 MTPA) is tabulated in Table I.

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Table I - Machinery Requirement for Phase III

Machinery	TCTDC Calculations EPC Stage Determination			SECMC Requested at Review			TCTDC Calculations EPC Stage Review Determination		
	Development period	*Mining period*	*Total*	*Development period*	*Mining period*	*Total*	*Development period*	*Mining period*	*Total*
6.5 / 7 m^3 Excavator	4	67	**71**	6	133	**139**	5	67	**72**
12 / 15 m^3 Excavator	-	25	**25**	-	19	**19**	-	25	**25**
Truck, 60 / 70 tonnes	78	1645	**1723**	93	1913	**2006**	85	1665	**1750**
Truck, 90 / 100 tonnes	-	136	**136**	-	101	**101**	-	136	**136**

5. Financing & LC Charges / Capital Structure

TCTDC had disallowed Financing & LC Charges amounting to US$ 3.15 million from the project cost of Phase-III mine expansion in the EPC stage determination. The Review Petition also requests an amount of US$ 1.93 million on pretext of Financing & LC Charges. It is important to note here that overall macroeconomic environment has relatively improved since the EPC Stage petition was submitted, and thereby potential LC charges have subsequently gone down, particularly after expected improvement in foreign currency liquidity position of the country. In view of the same, including LC Charges as a lump-sum in the coal tariff may not be reasonable. However, in a scenario, where the Petitioner has to pay any LC charges, the same may be considered at COD stage on the basis of actual amounts. The Petitioner may provide relevant details at the COD stage, including particulars of counterparty banks, LC amount charged, etc., such that any actualized amount can be justified.

Considering the scale of project, its experience with lenders over the years, and strong profile of its sponsors, which are among the largest private sector borrowers in the country, and hence are able to get better lending spreads, the proposed financing charges may be deemed as excessive, and are thereby not allowed.

In the case of lending spread, the requested spread of 2.5 percent over benchmark is not being considered at this stage, and the lending spread shall remain the same as was allowed in the determination. It is to be noted here that banks have surplus liquidity at this stage for private sector, considering bloated sovereign exposures – which enables the Petitioner to negotiate for a lower lending spread. To further diversify funding base, the Petitioner may also consider long-term bonds, that can be subscribed by non-banking financial institutions, mutual funds, or insurance companies, thereby providing a more competitive lending spread.

Considering the fact that the project continues to repay project debt assumed for Phase-I, available room in sovereign guarantee would continue to increase, which can provide sufficient cover for additional debt that is being assumed for Phase-III. This can provide the necessary coverage and risk mitigation required to negotiate a more competitive lending spread.

In view of the above, Financing & LC Charges requested at US$ 1.93 million are not being allowed, however, LC Charges may be considered on actuals at COD Stage. Similarly, lending spread allowed earlier shall remain unchanged.

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6. EPC Cost

EPC Costs were petitioned at USD 66.81 million in the Review Petition, however the same has been rationalized to USD 59.30 million following reconfiguration of equipment. The overburden removal cost is a critical component and is a function of equipment fleet size, and thereby has been adjusted accordingly. The equipment configuration is rationalized as discussed in Section 4 of this determination. After revised equipment fleet size, the overburden removal cost is adjusted to USD 34.36 million against the petitioned cost of USD 39.43 million. Table II presents the breakup and comparison of Petitioned and Determined EPC Cost

Table II – EPC Cost Comparison and Breakup

EPC Costs	Petitioned	Determined
Over-Burden Cost	39.43	34.36
Equipment Procurement and Installation	27.38	25.00
Total	**66.81**	**59.36**

7. O&M Cost

The Petitioner maintained that their equipment and machinery are aging and consume more spares and consumables, resulting in higher O&M cost. TCTDC is aware of the current financial situation and the challenges related to equipment and spare parts procurement, which are affecting the operational efficiency of the existing equipment fleet. The O&M cost is rationalized as per equipment reconfiguration discussed in Section 4 of this determination.

The Petitioner is encouraged to devise a plan to reduce reliance on imported spares / consumables. As the utilization of spares/consumables is going to increase substantially in future, the Petitioner should look into developing a localized supply chain for the same, so that reliance on imports can be reduced. This will also spur development of a downstream industry, and reduce reliance on imports accordingly. Such a plan may be shared with the COD Stage tariff petition.

Furthermore, O&M Costs will be rationalized on the basis of actualized costs, and updated deployment schedule at COD stage.

8. Non-EPC Cost

TCTDC had disallowed cost for Thar Rail Link, making the same contingent of development of the necessary rail infrastructure first, particularly the development of the Thar-Chhor railway link. The Petitioner has requested for infrastructure to support trucks in the Review Petition. However, it is to be noted that transportation infrastructure cannot be considered as part of mining infrastructure, and hence it cannot be deemed as a part of mining cost, thereby such infrastructure expenditure cannot be a part of coal tariff.

9. Return for Existing Shareholders

It is important to note here that the expansion of the mine is not just restricted to Phase-III, and considering the economic potential of Thar Coalfields there exists tremendous room for expansion, and economic profits – which may fairly compensate for any additional commercial risk that the project faces. The plea that some additional return mechanism be formulated for incremental risk is not justified, as no fresh equity injection is taking place. The request as detailed in Section J of the Review Petition is not being considered at this stage.

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COAL TARIFF REVISED ORDER

No. TCEB/Registrar/2-1/2014/CS-Phase.III/Review: The Thar Coal & Energy Board (TCEB) vide its decision No. TCEB/Registrar/2-2/2015/CS-Phase-III dated July 25, 2023 determined the Contract Stage Tariff for Sindh Engro Coal Mining Company (SECMC) for a 11.2 Mtpa mining capacity at Block-II Thar Coalfield District Tharparkar, Sindh, Pakistan. SECMC on July 27th, 2023, filed motion for leave to review the decision of TCEB dated July 25, 2023.

The Petitioner has submitted a request for determination of levelized tariff of USD 35.61 per Tonne for development & operations of 11.2 MTPA mining capacity.

Pursuant to Rule 10 of the Thar Coal Tariff Determination Rules 2014, Sindh Engro Coal Mining Company is allowed to charge the following ex mine mouth tariff for the production regimes of 11.2 MTPA. The following tariff is applicable for mine until SECMC achieve COD of Phase III, which is expected on December 31st, 2024, or as per FC stage tariff order of Phase III approved by TCEB (whichever is earlier):

Table I – Determined Composite Tariff for 11.2MTPA

Project Tariff	Year 1 – 10 Average	Year 11 – 30 Average	Year 1 – 30 Levelized
Total Production Payment Components	15.38	12.95	14.99
Total Capacity Payment Components	19.61	9.79	17.02
Total Project Tariff	**34.99**	**22.74**	**32.01**

All amounts in USD per Ton

Table II– Production Payment Component for 11.2 MTPA

Project Tariff	Year 1 – 10 Average	Year 11 – 30 Average	Year 1 – 30 Levelized
Fuel Cost	5.16	4.69	5.14
Variable O&M	1.36	1.20	1.35
Spares/Consumables	2.93	2.78	2.95
Asset Replacement Cost	3.49	2.70	3.31
Royalty	2.44	1.59	2.23
Total Production Payment	**15.38**	**12.95**	**14.99**

All amounts in USD per Ton

Table III –Capacity Payment Component for 11.2 MTPA

Project Tariff	Year 1 – 10 Average	Year 11 – 30 Average	Year 1 – 30 Levelized
Fixed O & M	4.34	3.99	4.27
Insurance	0.52	0.43	0.51
Power Cost	1.37	1.37	1.37
Cost of Working Capital	1.53	1.36	1.52
Principal Debt Repayment	4.07		2.75
Interest Payment	2.90		2.16
ROE	3.45	1.88	3.15
ROEDC	1.42	0.76	1.30
Total Capacity Payment	**19.61**	**9.79**	**17.02**

All amounts in USD per Ton

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Table IV – Petitioned and Determined Project Cost for Development of 11.2 MTPA Mining Capacity

Project Cost for 11.2 MTPA	Petitioned	Determined
EPC Cost	66.81	59.36
Non-EPC Cost	11.83	9.33
Insurance Cost	0.90	0.80
Financing Fee	1.93	-
Interest During Construction	11.57	12.97
Income from Pre-COD Sale	(15.69)	(15.69)
Total Project Cost	**77.35**	**66.78**

All amounts in USD Million

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GENERAL CONDITIONS

i. The reference tariff is computed on the basis of net coal extraction capacity of 11.2 MTPA until SECMC achieves COD of Phase III mine (i.e., December 31st, 2024).

ii. The above tariff is applicable on BOO basis commencing from Commercial Operations Date of mine until Company achieve its Phase III mine Commercial Operation (COD), which is expected on December 31st, 2024, or till that date as approved by TCEB in FC Stage tariff Determination of Phase II mine (whichever is earlier)

iii. The cost of financing is based upon 6-months KIBOR + 1.5% for the additional debt being assumed for Phase-III.

iv. The basis of this determination is a Debt-to-Equity ratio of 78:22 at this stage. However, as Pre-COD Sales are being deemed as Equity (without any corresponding fixed return), any incremental Pre-COD sales will further reduce the share of debt in the capital structure and must be incorporated accordingly in subsequent petitions, while being actualized at COD stage.

v. Debt servicing shall be paid during the first 10 years following COD of Phase-III.

vi. The reference blended coal tariff is determined such that it covers 100% repayment of local and international debt against approved project cost.

vii. Working Capital facility and the resultant cost is permitted for a maximum of 30 days of receivables on production payment tariff, 30 days of coal inventory, 30 days of (foreign) O&M advance, 6 months of spares inventory and 21 days of fuel inventory. The financing cost of the working capital facility is permitted at a maximum of 1-Month KIBOR + 2.00%.

viii. Project Tariff is based on a reference exchange rate of PKR 286.75 per USD, project cost of USD 82.47 Million (gross of Pre-COD Sales) for development of 11.2 MTPA capacity.

ix. The Petitioner is entitled to indexations in accordance with the mechanisms laid down under the 'REFERENCE TARIFF INDEXATIONS' section of this document.

x. The detailed cost components of tariff are tabulated in Annexure A appended to the end of this Order.

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Reference Tariff Indexations

The indexations shall be applicable on the reference tariff shall only be as detailed hereunder.

i. Fuel Cost

$$\text{Fuel Cost}_{(rev)} = \text{Fuel Cost}_x \times \frac{\text{Diesel Price}_{(rev)}}{276.24}$$

Where,

Fuel $\text{Cost}_{(rev)}$ is the revised Fuel Cost Component

Fuel Cost_x is the Fuel Cost of x^{th} year of operations

Diesel $\text{Price}_{(rev)}$ is the Delivered Diesel Price in terms of PKR per Litre notified by OGRA for Islamkot, District Mithi adjusted for NCV-GCV factor (Reference – 1.0574), Specific gravity (Reference – 0.84), and Calorific Value (Gross) (Reference – 44.2MJ/kg)

Frequency of indexation shall be as and when notified by Oil & Gas Regulatory Authority

ii. Variable O&M

$$\text{Variable O\&M}_{(rev)} = \text{Variable O\&M}_x \times \frac{\text{US CPI}_{(rev)}}{303.84} \times \frac{\text{PKR/USD}_{(rev)}}{286.75} \times \frac{7.13}{\text{RMB/USD}_{(rev)}}$$

Where,

Variable $\text{O\&M}_{(rev)}$ is the revised Variable O&M Component

Variable $\text{O\&M}_x$ is the Variable O&M Component of x^{th} year of operations

US $\text{CPI}_{(rev)}$ is the latest United States Consumer Price Index for All Urban Consumers (CPI-U) notified by the US Bureau of Labor Statistics

$\text{PKR/USD}_{(rev)}$ is the revised TT & OD selling rate of US Dollars as on the date on which the indexation is applicable, as notified by the National Bank of Pakistan

$\text{RMB/USD}_{(rev)}$ is the revised TT & OD selling rate of Chinese RMB as on the date on which the indexation is applicable, as notified by the People's Bank of China

Frequency of indexation shall be quarterly

iii. Asset Replacement

$$\text{Asset Replacement}_{(rev)} = \text{Asset Replacement}_x \times \frac{\text{US CPI}_{(rev)}}{303.84} \times \frac{\text{PKR/USD}_{(rev)}}{286.75} \times \frac{7.13}{\text{RMB/USD}_{(rev)}}$$

Where,

Asset $\text{Replacement}_{(rev)}$ is the revised Asset Replacement Component

Asset Replacement_x is the Asset Replacement Component of x^{th} year of operations

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US $CPI_{(rev)}$ is the latest United States Consumer Price Index for All Urban Consumers (CPI-U) notified by the US Bureau of Labor Statistics

$PKR/USD_{(rev)}$ is the revised TT & OD selling rate of US Dollars as on the date on which the indexation is applicable, as notified by the National Bank of Pakistan

$RMB/USD_{(rev)}$ is the revised TT & OD selling rate of Chinese RMB as on the date on which the indexation is applicable, as notified by the People's Bank of China

Frequency of indexation shall be quarterly

iv. Royalty

$$\text{Royalty}_{(\text{rev})} = \text{Coal Price}_{\text{y}} \times \text{Royalty}$$

Where,

$\text{Royalty}_{(rev)}$ is the revised Royalty Component

Coal Price_y is the Price of Coal (excluding Royalty) in y^{th} month of operations

Royalty is the minimum of 7.5% of Production Payment Price of Coal (excluding Royalty) or PKR 150 per Tonne or as otherwise notified by GoS for Royalty in Thar Coalfields

Frequency of Indexation shall be as and when notified by GoS

v. Fixed O&M – Local

$$\text{Fixed O\&M} - \text{Local}_{(\text{rev})} = \text{Fixed O\&M} - \text{Local}_{\text{x}} \times \frac{\text{Local CPI}_{(\text{rev})}}{235.23}$$

Where,

Fixed O&M – $\text{Local}_{(rev)}$ is the revised Fixed O&M – Local Component

Fixed O&M – Local_x is the Fixed O&M – Local Component in x^{th} year of operations

Local $CPI_{(rev)}$ is the latest is Consumer Price Index of Pakistan as notified by the Pakistan Bureau of Statistics

Frequency of Indexation shall be quarterly

vi. Fixed O&M – Foreign

$$\text{Fixed O\&M Foreign}_{(\text{rev})} = \text{Fixed O\&M Foreign}_{\text{x}} \times \frac{\text{US CPI}_{(\text{rev})}}{303.84} \times \frac{\text{PKR/USD}_{(\text{rev})}}{286.75} \times \frac{7.13}{\text{RMB/USD}_{(\text{rev})}}$$

Where,

Fixed O&M – $\text{Foreign}_{(rev)}$ is the revised Variable O&M Component

Fixed O&M – Foreign_x is the Variable O&M Component of x^{th} year of operations

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US $CPI_{(rev)}$ is the latest United States Consumer Price Index for All Urban Consumers (CPI-U) notified by the US Bureau of Labor Statistics

$PKR/USD_{(rev)}$ is the revised TT & OD selling rate of US Dollars as on the date on which the indexation is applicable, as notified by the National Bank of Pakistan

$RMB/USD_{(rev)}$ is the revised TT & OD selling rate of Chinese RMB as on the date on which the indexation is applicable, as notified by the People's Bank of China

Frequency of indexation shall be quarterly

vii. Power Cost – By Diesel

$$\text{Power Cost} - \text{By Diesel}_{(rev)} = \text{Power Cost} - \text{By Diesel}_x \times \frac{\text{Diesel Price}_{(rev)}}{276.24} \times \frac{\%\text{ of Diesel}_{(rev)}}{85\%}$$

Where,

Power Cost – By Diesel $\text{Diesel}_{(rev)}$ is the revised Power Cost – By Diesel Component

Power Cost – By Diesel_x is the Power Cost – Diesel Component in x^{th} year of operations

$\text{Diesel Price}_{(rev)}$ is the Delivered Diesel Price in terms of PKR per Litre notified by OGRA for Islamkot, District Mithi adjusted for NCV-GCV factor (Reference – 1.0574), Specific gravity (Reference – 0.84), and Calorific Value (Gross) (Reference – 44.2MJ/kg)

% of $\text{Diesel}_{(rev)}$ is the percentage of power generated by Diesel in x^{th} year of operations

Frequency of indexation shall be as and when notified by OGRA

viii. Cost of Working Capital

$$WC_{(rev)} = WC_x \times \left(a_x \frac{\text{Prod Pmt}_{(rev)}}{\text{Prod Pmt}_x} + b_x \frac{\text{Coal}_{(rev)}}{\text{Coal}_x} + c_x \frac{\text{Diesel}_{(rev)}}{276.24} + d_x \frac{\text{US CPI}_{(rev)} \times PKR/USD_{(rev)} \times 7.13}{303.84 \times 286.75 \times RMB/USD_{(rev)}}\right) \times \frac{KIBOR_{(rev)} + 2.00\%}{24.77\%}$$

Where,

Cost of $WC_{(rev)}$ is the revised Cost of Working Capital Component

Cost of WC_x is the Cost of Working Capital in x^{th} year of operations

a_x is the proportion of Coal Inventory Cost for 30 days calculated at Production Payment Price to amount of working capital facility in x^{th} year of operations

b_x is the proportion of Production Payment Price for 30 days to amount of working capital facility in x^{th} year of operations

c_x is the proportion of Fuel Cost for 21 days to amount of working capital facility in x^{th} year of operations

Prod $\text{Pmt}_{(rev)}$ is the Production Payment Price as determined by TCEB after incorporating indexations till latest month

Prod Pmt_x is the Production Payment Price as determined by TCEB for x^{th} year of operations

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$Coal_{(rev)}$ is the Coal Price (excluding Working Capital Component) as determined by TCEB after incorporating indexations till latest month

$Coal_x$ is the Coal Price (excluding Working Capital Component) as determined by TCEB at COD for x^{th} year of operations

Diesel $Price_{(rev)}$ is the Delivered Diesel Price in terms of PKR per Litre notified by OGRA for Islamkot, District Mithi adjusted for NCV-GCV factor (Reference – 1.0574), Specific gravity (Reference – 0.84), and Calorific Value (Gross) (Reference – 44.2MJ/kg)

$KIBOR_{(rev)}$ is 1-Month KIBOR rate at the end of the 1 month period prior to the month in which indexation is applicable, as notified by the State Bank of Pakistan

Frequency of Indexation shall be monthly

ix. Interest Payments – Local

$$\text{Interest} - \text{Local}_{(\text{rev})} = \text{Interest} - \text{Local}_x \times \frac{\text{KIBOR}_{(\text{rev})} + 1.5\%}{23.22\%}$$

Where,

Interest – $Local_{(rev)}$ is the Interest Payment – Local Component

Interest – $Local_x$ is Interest Payment – Local Component determined by TCEB for x^{th} year of operations, subject to adjustment on account of escalations till COD.

$KIBOR_{(rev)}$ is the relevant KIBOR rate prevailing for x^{th} year of operations, as notified by State Bank of Pakistan

Frequency of Indexation shall be semi-annually

Interest Rate Spread of 1.5% over reference KIBOR is only for debt assumed for Phase-III only

x. Interest Payments - Foreign

$$\text{Interest} - \text{Foreign}_{(\text{rev})} = \text{Interest} - \text{Foreign}_x \times \frac{\text{LIBOR}_{(\text{rev})} + 3.3\%}{5.56\%}$$

Where,

Interest – Foreign $_{(rev)}$ is the Interest Payment – Foreign Component

Interest – $Foreign_x$ is Interest Payment – Foreign Component determined by TCEB for x^{th} year of operations, subject to adjustment on account of escalations till COD.

$LIBOR_{(rev)}$ is the relevant LIBOR rate prevailing for x^{th} year of operations, as notified by State Bank of Pakistan

Frequency of Indexation shall be semi-annually

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xi. Equity Returns

$$\text{Equity Returns}_{(rev)} = \text{Equity Returns}_x \times \frac{PKR/USD_{(rev)}}{286.75}$$

Where,

Equity $\text{Returns}_{(rev)}$ is the revised Equity Returns Component

Equity Returns_x is the Equity Returns component determined by TCEB for x^{th} period of operations

$PKR/USD_{(rev)}$ is the revised TT & OD selling rate of US Dollars as on the date on which the indexation is applicable, as notified by the National Bank of Pakistan

Frequency of Indexation shall quarterly

xii. Cost of Transportation

$$\text{Cost of Transportation}_{(rev)} = \text{Cost of Transportation}_x \times \frac{\text{Diesel Price}_{(rev)}}{276.24}$$

Where,

Cost of $\text{Transportation}_{(rev)}$ is the revised Cost of Transportation applicable on tariff

Cost of Transportation_x is the Cost of Transportation applicable on tariff as determined by TCEB for x^{th} period of operations

Diesel $\text{Price}_{(rev)}$ is the Delivered Diesel Price in terms of PKR per Litre notified by OGRA for Islamkot, District Mithi adjusted for NCV-GCV factor (Reference – 1.0574), Specific gravity (Reference – 0.84), and Calorific Value (Gross) (Reference – 44.2MJ/kg)

Frequency of Indexation shall be as notified by OGRA

xiii. Heat Content Adjustment

$$\text{Adjusted Prod Pmt}_{(rev)} = \text{Prod Pmt}_x \times \frac{\text{Heating Value}_{(ref)}}{\text{Heating Value}_{(rev)}}$$

Where,

Adjusted Prod $\text{Pmt}_{(rev)}$ is the Production Payment Price adjusted for heating value (LHV)

Indexed Prod Pmt_x is the reference Production Payment Price in x^{th} year of operations

Heating $\text{Value}_{(ref)}$ is the heat content of coal, which for Year 1 – 8 is equal to 11.30 MJ / kg (LHV) and for Year 9 – 30 is equal to 11.61 MJ / kg (LHV)

Heating $\text{Value}_{(rev)}$ is the actual average heating value (LHV) during the relevant quarter of x^{th} of operations subject to a minimum heating value (LHV) permitted for Year 1 – 8 of 11.0175 MJ / Kg and for Year 9 – 3 of 11.31975 MJ / Kg

Indexation shall be computed annually.

THAR COAL AND ENERGY BOARD GOVERNMENT OF SINDH

ANNEXURE A – TARIFF TABLE SECMC PHASE III- 11.2 MTPA MINE:

Year	Variable O&M	Fixed O&M	Working Capital	Insurance	Asset Replacement	Royalty	ROEDC	ROE	Principal	Interest	Tariff
1	11.62	6.09	1.82	0.52	3.49	2.80	1.42	3.45	4.29	4.63	**40.14**
2	11.19	5.90	1.76	0.52	3.49	2.75	1.42	3.45	3.93	4.99	**39.41**
3	10.29	5.98	1.65	0.52	3.49	2.68	1.42	3.45	4.39	4.53	**38.41**
4	8.74	5.71	1.45	0.52	3.49	2.53	1.42	3.45	4.91	4.01	**36.23**
5	8.74	5.71	1.45	0.52	3.49	2.53	1.42	3.45	5.52	3.40	**36.22**
6	8.40	5.63	1.40	0.52	3.49	2.49	1.42	3.45	6.22	2.70	**35.73**
7	8.61	5.61	1.42	0.52	3.49	2.30	1.42	3.45	4.24	1.89	**32.96**
8	8.52	5.46	1.40	0.52	3.49	2.07	1.42	3.45	1.94	1.40	**29.68**
9	9.33	5.58	1.50	0.52	3.49	2.15	1.42	3.45	2.36	0.98	**30.79**
10	9.06	5.49	1.47	0.52	3.49	2.12	1.42	3.45	2.88	0.46	**30.37**
11	9.26	5.46	1.47	0.52	3.13	1.85	1.42	3.45	-	-	**26.57**
12	9.34	5.45	1.48	0.52	3.13	1.86	1.42	3.45	-	-	**26.66**
13	9.17	5.41	1.46	0.52	3.13	1.84	1.42	3.45	-	-	**26.41**
14	8.48	5.31	1.37	0.52	3.13	1.78	1.42	3.45	-	-	**25.46**
15	9.19	5.43	1.46	0.52	3.13	1.85	1.42	3.45	-	-	**26.45**
16	9.59	5.45	1.51	0.52	3.13	1.88	1.42	3.45	-	-	**26.97**
17	9.60	5.45	1.52	0.52	3.13	1.88	1.42	3.45	-	-	**26.98**
18	9.76	5.48	1.54	0.52	3.13	1.90	1.42	3.45	-	-	**27.21**
19	9.64	5.46	1.52	0.52	3.13	1.89	1.42	3.45	-	-	**27.04**
20	9.21	5.40	1.46	0.52	3.13	1.84	1.42	3.45	-	-	**26.44**
21	9.09	5.38	1.44	0.52	3.13	1.54	0.26	0.75	-	-	**22.12**
22	9.06	5.39	1.43	0.52	3.13	1.54	0.26	0.75	-	-	**22.09**
23	8.60	5.35	1.37	0.52	3.13	1.50	0.26	0.75	-	-	**21.50**
24	8.88	5.41	1.41	0.52	3.13	1.53	0.26	0.75	-	-	**21.90**
25	9.14	5.45	1.44	0.52	3.13	1.48	-	-	-	-	**21.17**
26	7.77	5.27	1.26	0.52	3.13	1.35	-	-	-	-	**19.29**
27	7.68	5.25	1.15	0.07	0.97	1.13	-	-	-	-	**16.26**
28	7.19	5.19	1.08	0.07	0.97	1.09	-	-	-	-	**15.59**
29	7.03	5.17	1.06	0.07	0.97	1.07	-	-	-	-	**15.36**
30	5.61	4.97	0.88	0.07	0.97	0.94	-	-	-	-	**13.42**
											$32.01