Thar Coal & Energy Board
Government of Sindh

No TCEB/Registrar/2-1/2014/MYT
October 22, 2025

DETERMINATION OF THAR COAL & ENERGY BOARD IN THE MATTER OF TARIFF FOR SINDH ENGRO COAL MINING COMPANY MINE PURSUANT TO INITIAL MULTI YEAR STAGE TARIFF FOR 7.6 MTPA EXPANDING UPTO 11.2 MTPA AT BLOCK II THAR COALFIELDS, DISTRICT THARPARKAR, SINDH, PAKISTAN

Thar Coal & Energy Board
Government of Sindh

No TCEB/Registrar/2-1/2014/MYT
October 22, 2025

Determination of Reference Tariff for Sindh Engro Coal Mining Company Mine Pursuant to Initial Multi Year Stage Tariff for 7.6 MTPA Expanding 11.2 MTPA Capacity at Block II Thar Coalfields, 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, Mining

Mr Ammar Habib Khan
Member, Finance/Power

Mr Tariq Ali Shah
Managing Director -TCEB

Thar Coal & Energy Board
Government of Sindh

No TCEB/Registrar/2-1/2014/MYT
28th October, 2025

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 Determination of Reference Tariff for Sindh Engro Coal Mining Company Mine Pursuant to Initial Multi Year Stage Tarfiff for 7.6 MTPA expanding to 11.2 MTPA Capacity at Block-II Thar Coalfields, District Tharparkar, Sindh, Pakistan, appended in the following pages.

28.10.2025

Tariq Ali Shah
Managing Director/Secretary
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
TCPBA	Tariff Control Period Balance Account

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 Petition of Sindh Engro Coal Mining Company (SECMC) for the Determination of Initial Multi Year Stage Tariff for SECMC's Mine of 7.6 MTPA which will be enhanced up to a mine size of 11.2 MTPA. The coal tariff determination relates to the specific mine lease of Block-II of Thar Coalfields. The Petition has been assessed and reviewed in accordance with the parameters and guidelines established under the Thar Coal Tariff Determination Rules, dated 27th November 2014, as notified by Government of Sindh. The coal tariff, so determined, shall form the basis of fuel cost for downstream power generation as determined by NEPRA.

1. Tariff Sought by Petitioner

The Petitioner has submitted a request for determination of levelized tariff of USD 37.30 per tonne for development & operations of 7.6 MTPA expanding to 11.2 MTPA capacity mine. The details of the petitioned tariff and costs are provided in Tables I to III here below:

Table I – Petitioned Project Tariff for 7.6 MTPA expanding to 11.2 MTPA Capacity Mine

Project Tariff	Year 1 – 10 Average	Year 11 – 30 Average	Year 1 – 30 Levelized
Total Production Payment Tariff Components	17.66	15.99	17.41
Total Capacity Payment Tariff Components	21.76	12.79	19.89
Total Project Tariff	**39.42**	**28.79**	**37.30**

All amounts in USD per tonne

Table II–Petitioned Production Payment Tariff for 7.6 MTPA expanding to 11.2 MTPA Capacity Mine

Production Payment Tariff Components	Year 1 – 10 Average	Year 11 – 30 Average	Year 1 – 30 Levelized
Fuel Cost	6.89	6.33	6.82
Variable O&M – Site Services	1.10	1.14	1.11
Variable O&M - Spares/Consumables/Tyres	3.31	3.22	3.30
Asset Replacement Cost	3.61	3.29	3.58
Royalty	2.75	2.01	2.60
Total Production Payment Tariff Components	**17.66**	**15.99**	**17.41**

All amounts in USD per tonne

Table III – Petitioned Capacity Payment Tariff for 7.6 MTPA expanding to 11.2 MTPA Capacity Mine

Capacity Payment Tariff Components	Year 1 – 10 Average	Year 11 – 30 Average	Year 1 – 30 Levelized
Fixed O & M - Foreign Site Services	3.33	3.13	3.31
Fixed O & M - Local	3.41	2.88	3.33
Insurance	0.62	0.59	0.62
Power Cost - By Solar	0.03	0.03	0.03
Power Cost - By Diesel	1.47	1.38	1.47
Cost of Working Capital	1.97	1.82	1.95
Principal Debt Repayment	3.41	0.02	2.54
Interest Payment	2.16	0.02	1.67
ROE	3.81	2.09	3.53
ROEDC	1.55	0.83	1.44
Total Capacity Payment Tariff Components	**21.76**	**12.79**	**19.89**

All amounts in USD per tonne

The amounts illustrated above are petitioned on the basis of certain assumptions which are detailed in the following sections. The key assumptions and basis of the petition are summarized hereunder:

i.	Price of Diesel	PKR 253.52 per Litre
ii.	PKR to USD Exchange Rate Parity	PKR 278.05 per USD
iii.	RMB to USD Exchange Rate Parity	RMB 7.017 per USD
iv.	US CPI	315.30
v.	Local CPI	260.96
vi.	Cost of Foreign Financing	6-month LIBOR + 3.73%
vii.	Cost of Local Financing- SG	6-month KIBOR + 1.75%
viii.	Cost of Local Financing- Non SG	6-month KIBOR + 2.50%
ix.	Cost of Local Financing- PIII	6-month KIBOR + 1.85%
x.	Cost of Working Capital	1-month KIBOR + 2.00%
xi.	6-month LIBOR Assumption	4.26%
xii.	1-month KIBOR Assumption	17.64%
xiii.	6-Month KIBOR Assumption	15.20%
xiv.	Debt to Equity Ratio	75:25
xv.	Debt Repayment Period	10 Years
xvi.	Equity IRR (Phase I + II)	20.00%
xvii.	Equity IRR (Phase III)	18.00%
xviii.	Mining Technology	Trucks (60t & 90t) & Shovel ($7m^3$ & $15m^3$)
xix.	Average Slope Angle of the Mine	24° (Degrees)
xx.	Average Rate of Dewatering	78,590 m^3/d

THAR COAL AND ENERGY BOARD ★ GOVERNMENT OF SINDH ★

2. Project Background

Sindh Engro Coal Mining Company (hereinafter referred to as "SECMC", or "Petitioner") submitted petition for Initial Multi Year Stage Tariff encompassing the expansion of mine at Block-II of Thar Coalfield from 7.6 MTPA to 11.2 MTPA ("Project") on 30th June, 2025. The petition follows a series of tariff petitions, and determinations, including Contract Stage Tariff, Financial Close Tariff, and finally COD Stage Tariff. The mine attained COD on 30th September, 2022, and supplying coal to power plants, viz. ThalNova Power Thar Ltd. (TNPTL) and Thar Energy Ltd. (TEL). The Phase III expansion is intended to supply 3.6 MTPA to Lucky Electric Power Company Limited (LEPCL).

The Petition references the Phase I and II COD-stage Tariff Petitions and Determinations (with subsequent indexations), the Phase III Contract Stage Tariff Petition and Determination, the Phase III Contract Stage Review Petition and Determination, and the Petition and Determination on Revised Financing Terms for Phase III. The Petitioner has used the outcomes and guiding principles of these instruments to develop the accompanying financial model, integrating historical actuals and forward projections to support a long-term tariff trajectory. Under the applicable regulatory guidance, the tariff period for MYT Stage determination commences on October 1, 2024 and extends for thirty years. For planning purposes, Phase III commercial operations are assumed to commence in Year 3 (October 2026) under the expedited plan, contingent on financial close and timely execution of project milestones.

3. Public Hearing

The notice of public hearing for the Initial MYT stage tariff petition for Block II open-cast lignite mine for a capacity of 7.6 MTPA expanding to 11.2 MTPA was advertised in major newspapers and TCEB website. The hearing was conducted on 6th August, 2025 at 11:00 am at Ball Room, Movenpick Hotel Karachi, where Mr. Aamir Iqbal, the CEO of SECMC, briefed the attendees about the current status of mining project at Block II, followed by Mr. Haseeb Shoukat, General Manager (Commercial), who presented the important aspects of Initial MYT Stage petition for the capacity of 7.6 MTPA expanding to 11.2 MTPA.

After the SECMC team provided a detailed presentation, the floor was opened to the audience for a question-and-answer session.

The participants raised queries regarding alleged discharge of contaminated water into the Gorano dam, environmental pollution associated with open pit mining activities, the absence of a clear resettlement policy for local communities, insufficient prioritization of local residents in job opportunities, the fairness and

transparency of the land acquisition process, and procurement practices perceived to ignore local vendors in favour of non-locals.

The participants also raised concerns regarding the conduct of the public hearing in Karachi, emphasizing that it should have been held in Islamkot or Mithi for broader local participation. The concern has been duly noted.

In response to participants' queries raised at the public hearing and by email, SECMC submits the following responses:

1. ***The discharge of contaminated water in Gorano dam – constructed without any environmental studies – is affecting water quality, agriculture and causing diseases, livestock deaths.***
    - *The Gorano reservoir design was reviewed by international experts following full regulatory approvals, comprehensive Environmental and Social Impact Assessments and community engagements.*
    - *The discharged groundwater is pumped directly from the aquifer and is not subjected to any form of contamination, and therefore does not qualify as an effluent.*
    - *We continuously monitor and submit reports to SEPA as per the legal requirements. Independent lab tests also consistently show that water quality parameters comply with Sindh Environmental Quality Standards (SEQS) and the more stringent US EPA 40 CFR 434 standard that we have voluntarily adopted. We have also recently become the only mining company in the world to be awarded the Alliance for Water Stewardship (AWS) Gold Certification, a global benchmark in sustainable water management.*
    - *Similar arguments were raised by several petitioners before and a case was filed before the Sindh High Court, which formed a Committee that included SEPA, community and other stakeholders. The matter was decided in SECMC's favour.*
    - *We fully comply with all regulatory and environmental requirements, and have always prioritized engagement with the Gorano community to understand and mitigate their concerns about any impacts on local water resources, ecosystem and agriculture.*

2. ***Open-pit coal mining is causing widespread environmental pollution across Pakistan, in particularly the local communities.***
    - *We continuously monitor and report our environmental impact, which is in line with the regulatory requirements set by Sindh Environmental Protection Agency (SEPA), relevant NEQS (National Environmental Quality Standards) and voluntarily compliance with the more stringent US EPA as well.*
    - *Given its size and population, Pakistan contributes less than 1% to global carbon emissions, which is significantly lower than other developing and developed countries.*
    - *No country can grow without a stable baseload from local, affordable energy. Therefore, the Government is taking a prudent approach to develop local Thar coal and scale other renewable projects to ensure a fairer energy transition for Pakistan.*
    - *Countries across the world are still adding coal plants to keep energy affordable. Pakistan produces just 20 million tons of coal a year, while India's coal production exceeds 1 billion tons. Local coal power plants contribute ~10-16% of Pakistan's electricity mix, as compared to India's ~75% and China's ~61%.*

3. ***Why doesn't SECMC announce a clear resettlement policy for local communities affected by its operations?***
    - *SECMC follows the Sindh Government Resettlement Policy Framework, which is the Government mandated legal framework for relocation of settlements.*

4. ***Why are local communities not being given priority in job opportunities?***
    - *SECMC maintains a strong local hiring commitment, with around ~90% of our workforce recruited from Sindh, including ~60% from the Thar region specifically.*
    - *In efforts to uplift the local community, ~2,000 community members have received vocational training in multiple fields but not limited to solar technology, PV systems, welding, and hospitality management.*

5. ***The land acquisition process has been unfair and many villages have been forcefully evicted from their homes.***
    - *The land acquisition for Thar Block II project was carried as per the statute Land Acquisition Act, 1894, in a legal, transparent and structured manner. All surface rights have been acquired accordingly.*
    - *As project proponents, we ensured full compliance with all legal formalities of the Land Acquisition Act, including issuance of Sections 4, 6, and 17 notifications, detailed land surveys, publication of public notices, consultations with project-affected communities, issuance of awards, and facilitation in record of right updates and heirship settlements.*
    - *We made 100% land payments to the Government through the designated Land Acquisition Collector's official account. Consequently, ~95% of private landowners have been compensated through transparent payments made by relevant Assistant Commissioners / Land Acquisition Officers via cross cheques issued only to verified legal owners. Due to such compliance there are no pending or decided petitions against SECMC's land acquisition proceedings.*
    - *In addition a legal compensation termed as annual livelihood support allowance of PKR 100,000 is being given to all resettled families.*
    - *All processes have been undertaken with due legal process, stakeholder engagement, and sensitivity to the rights and welfare of the local communities.*

6. ***There are reports that local vendors are being ignored and outside vendors have been favoured due to their political connections.***
    - *Based on competitive bidding and procurement policy, SECMC selects vendors completely based on merit through a transparent and fair process. We prioritize the development of local vendors by providing them with equal opportunities and conducting capacity building sessions to help scale and grow their businesses.*
    - *Under the Thar Vendor Development Program, more than 100 vendors have been developed locally to provide services not limited to but including catering, local transport, construction and general supplies. Local vendors have received business of more than PKR 3.5 billion from SECMC.*

The Private Power and Infrastructure Board (PPIB) provided written comments vide letter No. 1(103) PPIB-TCEB/25/PRJ/O-61548 as follows:

1. As a one window facility and regulator, TCEB is requested to endeavor reducing the price of Thar coal by increasing production, localization of technology and reducing fixed costs of coal mining operations. Continuously passing increase in costs of coal mining to end consumer by utilizing imported technology with limited life and periodic asset replacement is not sustainable.
2. TCEB is requested to adopt best international practices as a benchmark, for calculation of costs incurred on removal of overburden, assets replacement and others as claimed by the applicant from time to time and its plea for adjustment of the same in multiyear stage tariff.

3. As in the case of other federal regulators (OGRA, NEPRA etc.), TCEB is also advised to develop in house capacity of technical and financial experts to reduce dependence on third party consultants, for verifying claims of coal mining companies by reviewing technical and financial aspects of tariff review petitions.
4. All costs including actual OB removal costs and deemed costs to be incurred in future as claimed by SECMC, needs to be trued up based on actual expenses after a certain fixed interval. Furthermore, OB costs have to be aligned with maximum permissible utilization of available machinery/equipment used.
5. SECMC is offering 90 Ton truck and 200 Ton shovel technology, which is not sustainable for 30 years life of coal mine as this technology is becoming obsolete in the world. Furthermore, cost per ton of coal by employing such primitive technology is very high. Hence the petitioner may be advised to replace Truck Shovel technology which has high cost of operation with latest and efficient technology based on electric traction/haulage options or bucket wheel excavator so as to avoid recurring additional costs and save asset replacement costs, while also resulting in savings on fuel cost which is imported using precious foreign exchange.
6. Timeline for rapid expansion of coal mine be planned and may strictly followed to meet growing energy needs of the country.
7. PPIB supports SECMC's proposal for sale of Thar coal to other entities so as to reduce Fixed Fuel Cost component of all mine mouth coal power projects and LEPCL. This shall not only promote usage of Thar Coal but shall also pave the way for reducing power generation tariff considerably, thereby reducing undue burden on national exchequer. Further, we highly recommend that in case of sale of thar coal to other entities from the already extracted coal from 7.6 MPTA, upfront Fixed Fuel cost component already charged to IPP's needs to spread out on pro-rata basis to other entities as well and tariff to be adjusted accordingly.
8. PPIB proposes indigenization of majority of the coal mining equipment in order to reduce burden on the national exchequer, since all the equipment and its spares shall be imported and replaced throughout the life of the project and it shall be a major burden on national exchequer and eventually for the end consumer. TCEB is required to engage other entities and set timelines for indigenization of coal mining equipment to reduce burden on national exchequer.
9. The petitioner (SECMC) needs to substantiate its claims for escalations of various components of project costs by providing details of costs, by not relying merely on narration of incurred costs.
10. Except Schedule 1 of tariff table all other schedules are not annexed with the tariff petition available to public, making it difficult to provide detailed comments.
11. To substantiate the claims of coal mining companies, TCEB may engage an international renowned chartered accountant firm to conduct a detailed financial audit of coal mining companies.
12. TCEB's attention is also invited to take notice that the coal mines at Thar need to operation at maximum capacity to supply coal to potential users so as to reduce capacity charges in lignite coal price. Moreover, Pakistan coal import was 18.1 MTPA in 2021-22, and TCEB is requested to engage coal mining companies to expedite coal mine expansions, for substitution of imported coal with Thar coal, at the earliest.
13. Since the Schedule 3, with a revised "Asset Replacement Reserve Schedule" is not enclosed with this report hence the operational life existing fleet of trucks and shovels has not been stated. Accordingly, it is proposed that the life of machinery including Trucks, shovel and spares should be based on industrial practices/standards.
14. The salvage price on disposal of assets such as shovel and trucks should be subtracted from the Assets Replacement Costs.
15. With the expansion of mine production capacity from 7.6 MTPA to 11.2 MTPA, the previously identified early mover risks have been substantially mitigated. Accordingly, the sponsors' return of the purpose of Future Tariff request should be rationalized to align with the reduced risk profile.
16. The petition is on cost plus basis; therefore, a claw-back mechanism should be introduced like NEPRA mentioned in its recent cost-plus tariff determination, in case the profit/return earned by the Company is higher as compared with the tariff determination.

17. As highlighted above, since the early mover risk has been mitigated, and coal extracted till has been successfully supplied to IPPs, therefore, for the purposes of financing from banks spread over KIBOR and SOFR should be reduced.

18. The company has presented that it has saved PKR 21 billion and FOREX saving of USD 20 Million dollars per annum due to shift from International O&M contractor to local O&M contractor. We are of the view that any savings form the already awarded tariff whether in cost or associated adjustments of indexation shall also be passed on to the consumers through tariff determination and revision of coal price.

19. It is important to highlight that Phase I COD levelized tariff was determined USD 47.93/Ton, Phase II COD was reduced to USD 36.71/Ton, Phase III contract stage was further reduced to USD 32.01, which we understand was due to fixed cost absorption. However, the same fixed cost absorption and decrease in tariff thereon was not reflected in the future tariff claimed by the Company i.e., USD 37.3/Ton.

SECMC's email responses to the relevant queries raised by PPIB are set out below:

Point 4. *The MYT tariff mechanism under the Pricing Framework is designed to true-up costs based on actual expenditures incurred and is submitted at defined intervals to allow for tariff rationalization and optimization. Furthermore, to clarify TCEB determines the yearly allowed equipment based on Yearly Coal Production and OB removal plan of the mine, and mine holders are required to ensure that the equipment remains appropriately aligned to achieve required volumes.*

Point 5. *SECMC has opted for large size equipment during asset replacement to enhance efficiency and productivity. This is backed by the technical feasibility studies and congestion studies conducted by global consultants and experts. These studies recommend the truck and shovel approach of this capacity to be technically and commercially best suited in improving overall operation and cost efficiency. Even the recently concluded Bankable Feasibility Study (BFS) for Phase IV (~20 MTPA), Independent Experts have identified that the Bucket Wheel Excavator is more expensive in terms of life cycle costing as compared to Truck and Shovel approach that SECMC adopted.*

SECMC remains committed to adoption of world-class mining technology, with a strong focus on sustainability and cost optimization. In line with this vision, EV dump trucks have been introduced into the fleet on testing basis to assess their performance under actual operating conditions.

Point 6. *SECMC with support from TCEB, is making combined and continuous efforts to ensure the successful expansion of the project. This is evident from the completion of Phase I in 2019 and subsequent expansion to Phase II in 2022 with work underway for Phase III mine expansion targeted to be completed in 2026. In addition, the Bankable Feasibility Study for Phase IV expansion has already been completed. These initiatives reflect SECMC's commitment to continuous development for energizing Pakistan.*

Point 7. *As SECMC's primary obligation under the 7.6 MTPA mine capacity is to allocate coal to the IPPs with whom Coal Supply Agreements (CSAs) have been signed, with only coal supplied to other IPPs on an availability and/or trial basis. Furthermore, SECMC is already under discussion with TCEB on the matter.*

Point 8. *The transition to a self O&M model for non-mining operations in Thar Block II reflects SECMC's strong commitment to the operational excellence and cost optimization in coal mining. Simultaneously, this transition fosters localization through the developing of skilled workforce, local services, and spare parts provisioning, with local participation further promoted by building a vendor base in coordination with SECMC to minimize long-term reliance on imports and reduce the overall burden on the national exchequer.*

Point 9. *The MYT tariff submission is accompanied by comprehensive evidence of all payments, and invoices actually incurred along-with corresponding periods for true-up. This ensures that claims for cost escalations are fully substantiated with all supports.*

Point 10. *The petition has been submitted along with all the annexures as determined in the TCEB Rules, and the same has been duly submitted to TCEB.*

Point 12. *SECMC with support from TCEB, is making combined and continuous efforts to ensure the successful expansion of the project. This is evident from the completion of Phase I in 2019 and subsequent expansion to Phase II in 2022 with work underway for Phase III mine expansion targeted to be completed in 2026. In addition, the Bankable Feasibility Study for Phase IV expansion has already been completed. In phase 4 of mine expansion, SECMC also plans to expand into non-IPP segments, thereby reducing reliance on imported coal and further strengthening energy security across all sectors. These initiatives reflect SECMC's commitment to continuous development and energizing Pakistan.*

Point 13. *All schedules required under the TCEB Rules for MYT submission have been duly submitted to TCEB, along with petition. Furthermore, asset replacement, machinery life, and spare parts utilization are being implemented strictly in line with OEM guidelines.*

Point 14. *As per TCEB pricing framework especially MYT any such adjustment such as disposal of asset will be subtracted in tariff from operating cost. Moreover, due to tax considerations in scrap disposal this mechanism is already under discussion with TCEB and a detailed proposal has been submitted to TCEB accordingly for their review and support.*

Point 15. *The MYT tariff is determined based on actual costs along with future tariff based on tangible factors. It is important to note that SECMC's shareholders are not earning any returns from Phase III, as the entire project has been financed through debt and pre-COD. There is no additional return for the sponsors or shareholders from Phase III. In fact, the shareholders are exposed to higher operational and financial risks by taking on new customer and mine expansion, without any corresponding returns.*

Point 16. *The purpose of the Multi-Year Tariff (MYT) under the cost-plus regime is to actualize past costs, adjust any underrun/overrun amounts and ultimately pass on the benefit to the end consumer. Therefore, the surrendering of underrun amounts within the MYT by SECMC reflects the claw-back mechanism.*

Point 17. *Bank financing is benchmarked to KIBOR and SOFR rates. While the early-mover risk has been somewhat reduced however due to lack of global support on coal exploration, and the prevailing circular debt within the country, limit banks from offering competitive spreads. Furthermore, the Phase III expansion is being financed entirely through local banks without reliance on international lenders.*

Point 18. *SECMC has already submitted the mechanism to TCEB, which outlines the how impact on consumers will be passed, ensuring that the benefit to consumers is reflected accordingly. This is the purpose of MYT and the amount has been surrendered, and the mechanism has already been included in the petition.*

Point 19. *The comparison is not on an apple to apple basis as in Phase III contract stage Tariff it consists of 30 years of Phase III only however the tariff submitted in MYT is increased because it includes first two years tariff for Phase II of the Project (7.6 MTPA) and thereafter Phase 3 (11.2 MTPA). Rest assured with mine expansion there is decrease in tariff.*

PPIB's observations on cost reduction via scale and localization, use of international benchmarks for cost claims, strengthening in-house technical and financial capacity, and proportionate independent financial assurance are noted. TCEB upholds the established industry and regulatory practices in tariff reviews and will continues to enforce these standards rigorously in assessing this Petition and future submissions.

4. Fuel Component

The Petitioner submits that fuel consumption patterns correspond to the life-of-mine profile and are directly linked to the condition of the fleet. During the initial years of operation, when the equipment is relatively new and performing at optimal efficiency, fuel usage remains comparatively lower, whereas consumption gradually increases as the fleet ages and efficiency declines.

The explanation provided by the Petitioner that fuel consumption trends are mainly attributable to equipment ageing appears over-simplified. Older machines can certainly become less efficient; however, fuel use in mining is also influenced by factors such as road conditions and rolling resistance, haul distances and gradients, material characteristics, operator practices, traffic delays, and seasonal weather. In fact, road quality alone can at times result in higher fuel consumption even in newer trucks. The integration of a comprehensive fleet management system is therefore considered essential, particularly as the mine continues to expand, since it can generate single-truck-level data that helps identify the root causes of fuel consumption anomalies and supports targeted corrective actions.

The petitioner has reported a fuel cost underrun from Phase I operations, primarily attributable to the use of newer equipment during that period. Based on this statement, it can be deduced that such savings are likely to be cyclical in nature, recurring when asset replacement is undertaken and newer, more efficient units are introduced into the fleet.

It is noted that monsoon-related sludge accumulation and slope instability may have hampered production, necessitating pre-emptive measures such as diversion channels, trench cleaning, and drainage improvements to maintain operations. Sludge accumulation seems to reflect deficiencies in operational planning and control, which could be mitigated through improved bench re-design, optimized rainwater diversion channels, and better surface run-off management, thereby reducing re-handling requirements. The Petitioner is therefore advised to enhance mine planning and operational practices to minimize recurrence of such conditions in future.

The fleet transition from 60-tonne to 90-tonne trucks, along with the planned deployment of 200-tonne class excavators, is noted. While the larger trucks are associated with higher fuel consumption, the accompanying productivity and safety benefits are acknowledged. At the same time, the efficiency improvements expected from the newer and larger excavators should be clearly reflected in future projections to offset the higher fuel use of the truck fleet. A blanket assumption of increased fuel consumption cannot be considered reasonable, as it overlooks the balancing effects of reduced cycle times, fewer trips, lower idling, and improved fuel-per-tonne efficiency achieved through newer equipment. Forecasts must

therefore demonstrate this balance explicitly, showing both the higher hourly fuel rates of larger trucks and the offsetting productivity gains from modern excavators and optimized haul cycles, before drawing any conclusions on net fuel increases.

A comparative analysis of diesel consumption and overburden (OB) removal for the period April 2023 to April 2025 has been developed on the basis of monthly production reports submitted by the Petitioner. These reports, which include detailed fuel consumption data, constitute the primary dataset for assessing operational efficiency and identifying trends in fuel usage relative to material movement. Reported overburden volumes are corroborated with actual material movement by means of survey-based volumetric verification. The 2023 pit and ex-pit dump survey was completed during COD verification, while the most recent survey was carried out in May 2025 as part of the bi-annual periodic verification program. Comparative digital terrain models covering July 2023 and May 2025 (as shown in Figure 1) demonstrate pit progression and dump development, thereby reconciling reported volumes with observed values.

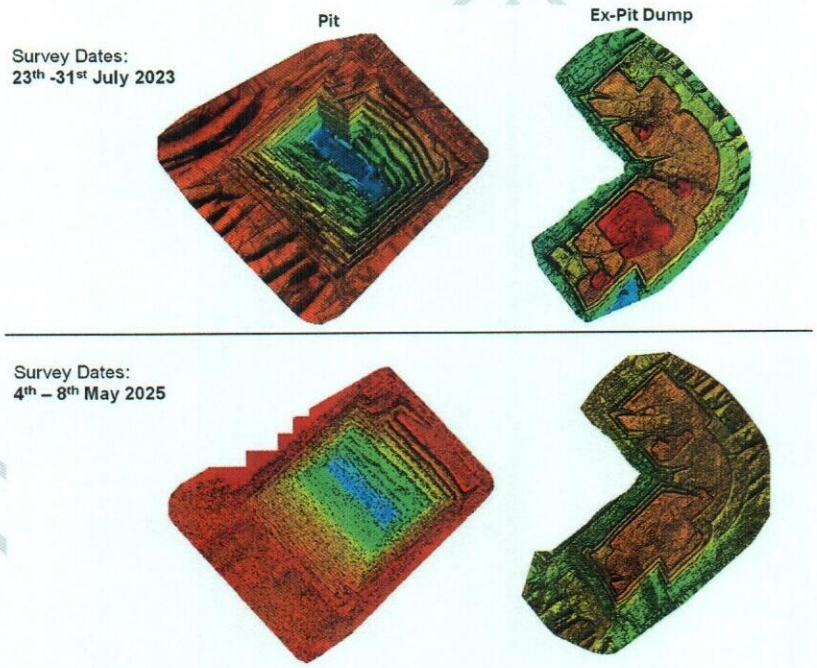

Figure 1. Comparative digital terrain models of pit progression and ex-pit dump development between July 2023 and May 2025 for Block II Mine

The analysis of diesel consumption, overburden (OB) removal, and the specific fuel consumption ratio (litres/BCM) for Block II over the period April 2023 to April 2025 indicates marked variations in operational efficiency. As illustrated in Figure 2, the blue line represents diesel consumption (litres), the red line shows OB removal (BCM), and the columns reflect litres consumed per BCM removed (refer secondary axis in Figure 2). During April to September 2023, the litres/BCM ratio was significantly higher, evidencing elevated fuel intensity as diesel consumption

remained high while OB removal volumes did not rise proportionately. From October 2023 onwards, the ratio declined, though it remained above the opencast mining benchmarks.

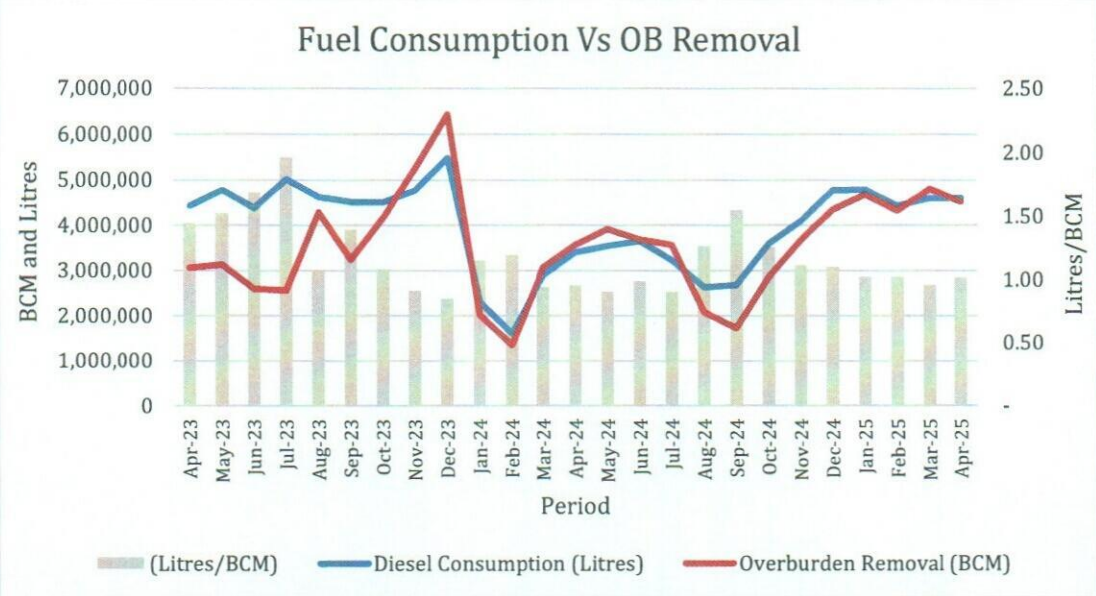

Figure 2. Diesel Consumption vs OB Removal (Apr-23–Apr-25) for Block II Mine
(Source: Monthly Production Statistics submitted to TCEB by SECMC Block II)

Table 1. Year-wise Dump Truck Procurement at Block II mine (2016–2025)

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
No. of Units	125	--	12	87	75	11	--	44	65	60

Correlation with fleet procurement records confirms that the elevated fuel intensity in early 2023 resulted from the absence of new truck procurement in 2022 and limited renewal in 2021, which extended the average truck age beyond the four-year replacement cycle. Reduced mechanical efficiency and extended haulage cycles adversely impacted productivity and fuel performance.

The Petitioner's higher fuel consumption is noted to have resulted from auxiliary activities such as trenching, sludge removal, and lagged overburden handling undertaken during the years 2024 and 2025 to support mine operations. The additional works are acknowledged as necessary operational requirements and, while considered temporary in nature, have been taken into account to a limited extent in the current assessment. The higher fuel consumption associated with these activities shall be subject to review at the Phase III COD stage determination.

The Petitioner is accordingly advised to submit a structured improvement plan with the objective of converging towards a specific fuel consumption level of ≤ 0.80 L/BCM. This plan should include a rolling fleet renewal program to maintain the average truck age within life-of-mine parameters, together with systematic haul

road optimization measures to minimize rolling resistance and reduce cycle-time delays. It should also provide for measures such as targeted operator training, enforcement of stricter idle-time controls, and the adoption of preventive maintenance protocols, all of which are critical to sustaining operational efficiency and reducing avoidable fuel consumption.

The improvement framework should also incorporate the establishment of a comprehensive fleet management system, which is essential for capturing accurate, truck-level data, ensuring transparency in operations, and supporting forward-looking planning. The system should be developed in a stepwise and technically structured manner, beginning with automated logging of fuel burn rates, payload, cycle times, and haul distances across the truck fleet, integrated with GPS positioning and engine telematics. At the intermediate stage, its scope should be expanded to include excavators, dozers, and auxiliary equipment, incorporating real-time monitoring of idle hours, rolling resistance indicators, and road condition impacts through automated sensor data. Ultimately, the system should evolve into a fully integrated mine-wide platform, delivering live dashboards with predictive analytics, anomaly detection, and trend-based forecasting to strengthen operational optimization, enhance cost control, and support long-term strategic planning.

5. Variable O&M and Fixed O&M Foreign

An increased Operation & Maintenance (O&M) costs is being projected, driven by the aging of the equipment fleet, higher cost of spares for newer and larger machinery models, and an anticipated increase in contractor pricing for the post-2026 O&M contract due to the prevailing security environment in Pakistan. A strategic shift toward self-procurement of spares and self-performance of non-mining O&M activities is noted and appreciated, as this would lead to greater localization and greater operational control. The recognition of only those spares that have been utilized for consumption is noted.

The projection of future spares requirements based on OEM-recommended Preventive Maintenance (PM) cycles and historical Corrective Maintenance (CM) data is a sound methodology, and the same is accepted as a basis for the spares component. However, the assumption of higher future contract prices due to a "deteriorating security environment" is a speculative, forward-looking claim that is difficult to quantify, given an overall improvement in sovereign risk fundamentals. Such a premium may not be acceptable on an ex-ante basis.

O&M cost projections based on the OEM-recommended cycles and historical data are being concurred here. For the post-2026 foreign O&M contract, a provisional amount based on the current contract with reasonable escalation may be allowed. This allowance is made with the explicit condition that the final, negotiated contract must be submitted to the TCEB for a prudency review. Any variance between the

provisionally allowed cost and the prudently determined final contract cost will be adjusted in the subsequent MYT true-up.

The Petitioner's assertion that higher maintenance/spares costs are inherent to larger equipment is not supported by efficiency metrics. Under comparable conditions, larger-capacity trucks typically deliver superior cost efficiency measured on a per-BCM and per tonne-kilometre basis. Cost increments beyond 2026 will be reviewed with reference to executed contracts and objective indices. Subject to substantiation by that evidence, such adjustments may be incorporated at COD in the Phase III petition or any subsequent petition stage. At this stage, blanket uplifts will not be embedded in the current MYT.

6. Asset Replacement

An Asset Replacement Reserve has been established as a dedicated mechanism to ensure that adequate funds are available throughout the mine's life for the timely replacement of critical assets required to sustain operations. The Petitioner's proposal to include major equipment overhauls under this component, rather than treating such costs as routine O&M, does not imply general acceptance, as the Asset Replacement Reserve is primarily intended for the procurement or replacement of new equipment fleet. However, specific cases duly supported with technical and financial justification demonstrating tangible efficiency gains and cost optimization may be submitted for consideration on merit within the approved framework.

It is reiterated that all funds collected under this tariff component must be held in a segregated, and dedicated account. Any interest income accrued on the same shall also be used for the specific purpose only, and any differentials, whether in terms of excess, or deficit of available reserve may be adjusted in subsequent MYT. Disbursements from this account shall be permissible only for expenditures related to the approved asset replacement.

The petitioner's asset replacement plan and current procurement upto 2025 have been reviewed, and the asset replacement component has been adjusted for operational years of 7.6 MTPA. The cumulative balance and any required adjustments will be reviewed and finalized at the COD stage of the Phase III expansion petition, with any over- or under-recovery reflected in the approved tariff profile.

7. Fixed O&M (Local)

Under the Fixed O&M – Local cost head, the Petitioner sought acknowledgment of the under-run in costs during the current MYT period, allowance for purchase orders disbursed beyond the MYT cut-off but directly linked to revenue earned, and acceptance of revised cost projections reflecting updated village relocation

requirements, the transition to self-O&M for non-mining functions, and anticipated increases associated with the Phase III expansion. It is noted that as the mine expands certain capital expenditure may be incurred post-MYT cut-off period, and any differential associated with the same can be covered in a subsequent petition.

The shift to self-O&M for non-mining functions reflects an effort toward localization and cost rationalization; however, the asserted efficiency gains must be substantiated through demonstrable cost-effectiveness rather than resulting in an overall increase in expenditure. Furthermore, provisions relating to resettlement and any associated cost escalations beyond the Phase III expansion shall be subject to thorough review at the COD Stage of the Phase III Petition, in line with the prudence principle.

8. Power Generation

More work needs to be done in indigenizing power generation, and reduce reliance on imported diesel, with a clear view of electrification of production. More effort needs to be made to utilize grid-based power at a marginal price, or best-possible available price needs to be considered, and active efforts must be made to electrify the mine as much as possible. A longer-term view needs to be taken for power generation, wherein expected load for the future, whether for mine operations, dewatering, or conversion of diesel-based vehicles to electric vehicles is considered. A transition towards electrification of the facility, that relies on the grid, rather than diesel power generation would certainly result in reduction in overall costs, eventually leading to higher efficiency, reduction in foreign exchange outflow, and savings for the consumer.

9. Insurance

A material increase in future insurance costs is anticipated, citing a hardening global insurance market with diminishing appetite for coal-related risks, Pakistan's specific sovereign risk profile, and the intention to secure coverage for critical operational risks like slope failures and mine flooding, which are currently uninsured. The intention to secure coverage for critical operational risks is noted, and must be considered on a priority basis – however, there has been renewed interest in coal mining, and financing, and thereby potential risks associated with absence of reinsurers, or insurers may be overstated.

The request for a higher insurance budget may be deemed as reasonable and prudent. The projected cost needs to be benchmarked against indicative quotes from reputable local and international insurance brokers for mining operations of a similar scale and risk profile. The approved amount in the tariff will be provisional, subject to an annual true-up against actual, verified insurance premiums paid. This

mechanism ensures that consumers pay only for the insurance coverage that the Petitioner successfully and prudently obtains.

10. Interest & Principal Payments

The tariff's capacity payment component is designed to cover the project's capital costs, including debt servicing and a fair return on equity investment.

A. Phase III Local Debt

The petition includes a debt repayment profile for a new PKR 20 billion local financing facility from Meezan Bank for the Phase III expansion. The terms, including an interest rate of KIBOR + 1.85%, have been reviewed, and are found to be consistent with prevailing market conditions for long-term, large-scale project financing in Pakistan. The debt servicing component associated with this facility is approved for inclusion in the MYT tariff.

B. Diversifying Capital Base

It is important to note that the Petitioner should consider tapping capital markets for diversifying its capital structure, and to get better pricing from the market through a broad based set of debt providers, that includes mutual funds, individuals, pension funds, etc. It may even consider tapping the commercial paper market for its short term working capital needs for better pricing, and an eventual lower cost for consumers, as well as efficiency gains.

C. Principal Repayments

Principal repayments are aligned with the approved schedule, in-line with the financing documentation. The same shall remained aligned with the pre-determined schedule going forward, and any change would largely be a function of principal repayment of Phase III debt, as and when that is finalized.

11. Transport

The Petitioner modeled transport costs on the existing truck-based logistics framework and undertook a techno-commercial assessment of truck versus conveyor belt transportation. Based on the Petitioner's assessment, the conveyor option is less feasible at this stage, primarily due to higher capital intensity and the requirement for extensive redundancies to ensure reliability. These considerations are acknowledged; however, the analysis remained narrowly focused on capex and payback period, without comprehensive financial benchmarking or quantification of redundancy requirements. The Petitioner is therefore advised to submit a full-scale feasibility study on the potential transition to a conveyor belt system within two months from the date of this determination. The study should also take into account the availability of cost-effective grid power for operating the belt system, incorporate the Petitioner's justification for applying local CPI indexation, and present a

comparative analysis of all available options to ensure a balanced and transparent assessment.

In view of the above, the transport cost of USD 0.54 per tonne, consistent with the COD Phase II Determination and with the fuel cost duly adjusted, is allowed. Any variation, if supported by the findings of the feasibility study on the Conveyor Belt, may be considered at a later stage. However, the Petitioner's request for local CPI indexation in transportation cost cannot be considered at this stage, as the Conveyor Belt feasibility study requires comprehensive updating and validation in all relevant aspects.

12. Claim for Post-COD Costs & Adjustment to ROE

The Petitioner has made a claim to capitalize an additional USD 9.4 million in costs related to Phase II. It is stated that these costs, for essential infrastructure, were accrued prior to the Phase II COD but were contractually committed or incurred substantively after the COD date. The Petitioner has treated these as capital costs, funded on a 75:25 debt-equity basis, and seeks to recover the associated debt service and Return on Equity (ROE) through this MYT.

Section 10 of the Phase II COD Tariff Determination is cited by the Petitioner to validate the claims. The Petitioner must confirm in a subsequent petition whether these costs have been fully incurred, and once the same is verified, the same costs can be allowed to be capitalized. The corresponding debt servicing and ROE components will be incorporated into the MYT tariff and amortized over the remaining project life. Should the submitted documentation prove insufficient, the claim may be subject to partial or full disallowance. .

The Board has verified that the ROE and Return on Equity During Construction (ROEDC) components in the Petitioner's financial model are calculated based on the approved equity amounts from prior determinations, adjusted for the equity portion of the provisionally approved USD 9.4 million capex. The resulting levelized tariff components for ROE ($3.53/ton) and ROEDC ($1.44/ton) are validated against the financial model and concurred.

13. Royalty

The Petitioner's explanation regarding submission of PKR 1 billion to be payable to Government of Sindh, as royalty following an audit for MYT is noted, and appreciated in-line with principles of transparency, and completeness of cost recovery.

14. Duties and Taxes

It is petitioned that any taxes, duties, WPPF, or WWF, that the Project has to pay will be considered on a case by case basis on a quarterly basis at the time of indexation. The same can also be covered in subsequent MYTs. Any such requests of paid taxes, duties, WPPF, WWF, excise duty on minerals for labour welfare etc will only be considered on an "as and when paid" basis, with availability of incontrovertible proof of payment

15. Hard Stop Date Under Phase 2 Tariff for Phase 3

The existing Phase II COD Stage Tariff Determination includes a "hard stop date" of September 30, 2025, beyond which no tariff is defined for Phase II sales. The Petitioner has highlighted that delays in achieving Financial Close for Phase III, driven by external factors, have pushed the projected Phase III COD to October 2026. This creates a one-year regulatory gap during which the Petitioner would have no determined tariff for its ongoing 7.6 MTPA operations.

To ensure uninterrupted operations and fair compensation, that for the interim period commencing October 1, 2025, and lasting until the actual achievement of the Phase III COD, the tariff applicable to coal supplied under the Phase II capacity (7.6 MTPA) shall be the last determined quarterly indexed tariff of Phase II that was applicable for the quarter ending September 30, 2025. This tariff shall continue to be indexed quarterly in accordance with the existing, approved Phase II indexation mechanisms till September 30, 2026. However, in case of any anticipated delay of COD of Phase III, the same should be communicated to TCEB well in advance. At that point in time, TCEB may decide whether the above outlined mechanism can be extended, and for what specific period of time. As of this point, the indexation to cover for the interim period till COD of Phase III is achieved (as expected by October 1, 2026), has been kept time bound. Any delay in COD will require the tariff to be revised for subsequent years.

16. Pre-COD Sales

Any incremental coal sales (over and above existing contractual CSAs) that are done before COD of Phase-III, shall be deemed as Pre-COD Sales, and would be adjusted against the Project Cost of Phase-III. However, in a scenario where COD has been achieved, any coal sales to non-CSA entities, may have their fixed costs proportionally adjusted against invoices raised by dedicated power plants, wherein dedicated power plants being those that have a firm CSA in place with the seller. This is to ensure that there is any duplication of fixed costs that are charged is avoided.

However, in a scenario where a seller has a future expansion is in process, any fixed costs recovered would be utilized to cover capital expenditure for the

respective future expansion. A future expansion would be deemed valid for this purpose, if a Contract Stage Tariff is in place for the same.

17. ADJUSTMENT FOR UNDER-RUN/OVER-RUN

A. INTEREST PAYMENTS (CLAIMED OVERRUN: PKR 1,717 MILLION)

An overrun of PKR 1,717 million in interest payments has been claimed, that is being attributed to a structural timing mismatch between the quarterly tariff indexations, and the semi-annual settlement of debt servicing obligations. It is argued that the benchmark interest rates (KIBOR/SOFR) used for quarterly indexation did not accurately reflect the actual, higher rates applicable at the time of the semi-annual payments. The net overrun can largely be linked to a timing mismatch.

The debt servicing record in conjunction with historical interest rate data has been reviewed. It is to be noted that the period under review was characterized by significant volatility and a general upward trend in benchmark rates, particularly KIBOR, which increased to a high of 24% during the period under review. Such excessive increase in rates in a short time exacerbated the mismatch.

A review of the indexation calculations confirms that the semi-annual payment dates often fell in periods where the prevailing interest rates were higher than the average rate captured in the preceding quarterly indexation, thereby resulting in a mismatch. It may be fair to say, and evidenced through a review of cash flows, that the primary driver of this overrun was the structural misalignment in the timing of cost incurrence versus cost recovery, and not imprudent financial management. The claimed overrun is deemed to be prudently incurred, has been verified by external auditor, and is allowed in full.

B. COST OF WORKING CAPITAL (CLAIMED UNDERRUN: PKR 9,576 MILLION)

A substantial underrun of PKR 9,576 million under the Cost of Working Capital component has been reported, which is the single largest variance that is being claimed. However, it is noted that this underrun is not a result of operational efficiency, or reduced working capital needs, but rather forced liquidity management measures necessitated by severe external pressures. These measures included deferring dividend payments to shareholders due to massive outstanding receivables from IPPs, due to circular debt constraints, as well as delayed payments to contractors, partly due to foreign exchange remittance challenges during the constrained period under review. Due to availability of surplus liquidity, borrowing requirements remained low, resulting in reduced working capital requirements, and hence interest payments associated with the same.

A severe liquidity crisis, which is consistent with the well-documented circular debt issue plaguing Pakistan's power sector, is juxtaposed with a large accounting underrun in the cost of financing that liquidity. This underrun does not represent a "saving" in the conventional sense that should be passed on to consumers as a signal of efficiency, but it reflects a shifting of the financial burden onto the suppliers and shareholders. It can be deemed as an outcome of systemic distress, rather than operational excellence.

Even though the underrun must be factually acknowledged for the purpose of the historical true-up, it would be imprudent to interpret this as evidence of a permanently lower requirement for working capital. The historical underrun is accepted for the purposes of reconciliation and is being allowed in full.

C. Fuel Cost (Claimed Underrun: PKR 4,617 Million)

An underrun of PKR 4,617 million is claimed under the Fuel component. It has been clarified in the petition that a majority of this underrun pertains to the initial Phase I period and should not be considered indicative of future fuel efficiency, which is expected to decrease due to evolving mine conditions.

A review of historical fuel price data and as well as the project's early-stage operational reports confirms that a combination of factors, including lower than expected diesel prices in certain periods, as well as better initial fleet efficiency, contributed to this outcome. An important performance baseline is being established here. Any Claims for significantly higher future fuel costs will be evaluated against this demonstrated historical baseline, necessitating robust justification for any projected deviation from this baseline efficiency.

D. Other Components (O&M, Insurance, Power, etc.)

The remaining cost underruns, such as O&M (PKR 1904 million), Fixed Cost Local (PKR 1,882 million), Insurance (PKR 2,180 million), Power Cost (PKR 2,300 million), and Transportation (PKR 28 million) have been reviewed, and the explanations provided, such as the delay of non-essential activities under Fixed O&M (Local) pending the finalization of the Phase II COD tariff, have been verified against the project's timeline and are found to be plausible. These underruns are accepted as claimed.

More importantly, these costs provide a baseline against which future costs can be pegged, or monitored against. For example, in the case of insurance costs, wherein a better premium can be negotiated, or power costs, wherein a transition from diesel generated power to utilization of grid-power through a dedicated structure can be considered.

E. Adjustment of Interest Income

A review of financial statements of SECMC exhibits that since inception of the project has earned more than PKR 20.259 billion in gross interest income, of which PKR 7.469 billion has been deducted as taxes, resulting in net interest income of PKR 12.789 billion. It is to be noted that even though the core operations of the entity have tax exemption, the same is not available for interest income accrued on available liquidity. The net interest income accrued by SECMC is PKR 12.789 billion.

In a cost-plus regime, any tariff allowed must be determined after taking into consideration reasonable and judicious cost estimates, such that the consumer may not be burdened with any excess costs. In view of this spirit, a detailed review was done of the interest income accrued by SECMC.

Table 2. Interest income earned by SECMC (PKR '000)

Year	Interest income	Applicable Tax rate	Interest income - Net of tax
2019	48,009	29%	34,087
2020	742,208	29%	526,968
2021	1,225,668	33%	821,198
2022	4,645,736	33%	3,112,643
2023	8,503,216	39%	5,186,962
Sep-24	5,094,778	39%	3,107,815
	20,259,615		**12,789,671**

Interest income accrued is additional income that is over and above the indexed ROE and ROEDC allowed for the entity. This is effectively income that was available on the liquidity available with the entity due to any cash flow mismatch that may happen due to delays in payments, or earlier recoveries, etc. However, some of this interest income accrues on the ROE and ROEDC component of tariff, which justifiably belongs to the shareholders.

Any interest income over and above the same may be deemed as excess liquidity that can be returned to the consumers. After taking into consideration cash inflows, and adjusting the same for ROE and ROEDC component, it is estimated that from PKR 20.259 billion, roughly PKR 6,984 million can be attributed to interest income on ROE and ROEDC component of tariff, which are effectively shareholder funds, once received by the company. Another PKR 1,104 million can be attributed as payable to WPPF. Interest income accrued of PKR 1,244 million has been attributed to Asset Replacement Reserve, and remains restricted to the same. Adjusting for the above, remaining amount is PKR 3,142 million, which is potentially excess interest income that can be returned back to consumers.

Table 3. Interest income Breakup

	PKR ('000)
Gross Interest Income	20,259,615
Less: Accrued/Paid Taxes	(7,469,944)
Less: Interest Income on Asset Replacement Reserve	(1,244,667)
Less: Interest Income accrued on Shareholder Funds	(6,984,613)
Less: Interest on WPPF Payment	(1,104,000)
Less: DPI Payable to Contractor due to Delay in Repatriation of Funds	(313,500)
Interest Income To be clawed Back	**3,142,891**

It must be appreciated that the entity was able to effectively manage its liquidity, that led to reduction in working capital costs, while also accruing higher interest income, that served both shareholder interests, as well as consumer interest. However, significant reduction in interest income due to taxation remains a concern, and the same needs to be addressed. Even though there is a difference between tax accrued, and paid, the differential is not being clawed back to avoid liquidity issues that may arise if a tax demand needs to be fulfilled. The Petitioner must strongly consider and approach all relevant forums to plead the case, as any excess tax paid despite availability of tax exemption, is effectively transfer of funds that are due right of the consumers to the tax authorities.

There also exists a strong case to reduce effective tax rate, to reduce even accruals, by reallocating a certain portion of liquidity to treasury bills, or fixed income/money market mutual funds. Similarly, amount available in asset replacement reserve has a long-tailed horizon, thereby some of it can also be redeployed in medium-tenor government securities, whose maturity aligns with the cash flow requirements of asset replenishment. The entity must consider development of an Investment Policy Statement that optimizes after-tax returns, and reallocates any surplus liquidity accordingly.

Table 4. Summary of Historical Cost Reconciliation and Determined Adjustments (PKR Million)

Reconciliation of Historical Underrun/Overrun (PKR Million)	Claimed Net Amount (PKR Million)	Determined Net Amount (PKR Million)
Fuel	4,617	4,617
O&M	1,904	1,904
Transportation	28	28
Fixed cost (local)	1,882	1,882
Insurance	2,180	2,180
Power Cost	2,300	2,300
Interest	(1,717)	(1,717)
Cost of working capital	9,576	9,576
Interest Income Adjustment	-	3,143
Total Net Underrun to be Adjusted	**20,770**	**23,913**

18. HEATING VALUE REASSESSMENT

The Petitioner has submitted that the Reference Heating Value of 11.61 MJ/kg, as determined under TCEB's existing framework for the 7.6 MTPA mine (applicable from Year 9 onwards), does not accurately represent the quality profile of Thar Block II coal. Citing the Bankable Feasibility Study (BFS) and the JORC-certified Block Model prepared by an independent third party, which indicate an average heating value of 10.86 MJ/kg, the Petitioner has emphasized that the calorific value exhibits variability across different areas of the mine and throughout the production years.

The Petitioner's request for revision of the Reference Heating Value is not allowed at this stage, and the Reference Heating Value shall remain unchanged at 11.61 MJ/kg (for year 9 onwards).

The Petitioner is advised to submit a detailed and validated reconciliation of Block Model averages with actual production data from the mined blocks, in order to demonstrate how geological variability impacts delivered coal quality. The submission should include the production schedule of past mining blocks along with the actual calorific values obtained from those blocks, together with future production scheduling measures to ensure balanced mining of low- and high-calorific-value blocks. The submission shall be made along with the upcoming petition, allowing its consideration in the next stage of tariff review.

19. TARIFF ADJUSTMENT

To ensure transparency, fairness, and regulatory certainty, the Board establishes the following methodology, based on international best practices, for the ongoing reconciliation of costs and the adjustment of future tariffs. This systematic approach will govern the treatment of all variances.

A. CLAW BACK OF EXCESS AMOUNT (NET UNDERRUN + SURPLUS)

Excess Amount is deemed as the sum of "Net Underrun", and any "Surplus" deemed over and above the guaranteed return, and reasonable cost allocations. Considering principles of transparency, and cost recovery, that are pillars of a cost-plus regime, the Excess Amount determined in Section 17(E), above, needs to be returned back to consumers through a claw back mechanism. The claw back mechanism is being proposed, such that the Excess Amount is split in equal quarterly installments, paid over the quarterly indexations commencing from July 2025 to September 2026, and adjusted in respective invoices. It is to be noted that the Excess Amount shall not reflect in the tariff per ton for the particular quarter, but should be adjusted from the total amount calculated for sale of coal to power plants for that particular quarter.

B. Tariff Control Period Balancing Account (TCPBA)

To ensure regular, and consistent reconciliation of any underrun, or overrun of tariff, the establishment of a notional **Tariff Control Period Balancing Account (TCPBA)** for the Petitioner is being considered. Such an account will serve as the formal regulatory ledger to track all deviations between revenues recovered under the approved tariff and the final, prudently determined costs for each tariff component. The following may serve as guidance for development, and operationalization of TCPBA:

1. At the end of each financial year, the net difference (over-recovery or under-recovery) for all tariff components, will be recorded as a credit or debit to the TCPBA. The same will be verified by the entity's external auditor, at the same time the Petitioner is getting its financial statements audited. This will ensure that any financial reconciliation can be promptly audited, and adjusted in a timely manner.
2. The running balance in the TCPBA shall accrue carrying costs, calculated on a quarterly basis at a rate equal to the a 3-month Treasury Bill yield less 2%. This ensures that the time value of money is applied fairly to both the Petitioner (in case of under-recovery) and the consumers (in case of over-recovery).
3. The running balance in the TCPBA shall initiate from 1-Oct-2025 onwards, including the under-run amount as calculated in this Determination, such that the process is started on a priority basis.
4. Separate TCPBA sub-accounts for 7.6 Mtpa, and 11.2 MTPA to prevent cross-subsidy, and to transparently show benefits of scale
5. All recoveries as stipulated in this Determination to be amortized and settled as per Section 19(A) above.
6. Within 120 days of the conclusion of each financial year, the Petitioner shall submit a detailed Annual Reconciliation Report to TCEB as an "Indexation and Escalation Tariff" within the stipulated time period. This Report must provide a comprehensive, component-wise breakdown of actual costs versus allowed tariff revenues and calculate the net annual entry for the TCPBA.
7. The Annual Reconciliation Report must be accompanied by a report from the company's external auditor, verifying that the costs claimed by the Petitioner are accurately stated and traceable to its audited financial statements.
8. As the TCPBA will be updated annually, the cumulative balance will be cleared on a rolling four-quarter basis. This ensures that amounts do not accumulate significantly on either side, and there is sufficient oversight to minimize any significant variance in a timely manner.
9. Quarterly adjustment would be capped at 20% of coal price, such that it does not disproportionately affect either party. Any excess amount can be carried forward to subsequent quarter.

COAL TARIFF DETERMINATION ORDER

No.TCEB/Registrar/2-1/2014/MYT: This determination is conducted in accordance with the authority vested with Thar Coal Energy Board and pertains to the Petition dated 30th June 2025, of Sindh Engro Coal Mining Company for Determination of Initial Multi Year Stage Tariff for SECMC's Mine of 7.6 MTPA which will be enhanced up to a mine size of 11.2 MTPA at Block II Thar Coalfields, District Tharparkar, Sindh, Pakistan. The Petition is assessed and reviewed in accordance with the parameters and guidelines established under the Thar Coal Tariff Determination Rules, 2014. The Petitioner has submitted a request for determination of levelized tariff of USD 37.30 per tonne for operations of 7.6 MTPA mining capacity expanding to 11.2 MTPA.

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 7.6 MTPA expanding to 11.2 MTPA. The first two (02) years of the following tariff detailed in Annexure-A are applicable for mine with capacity of 7.6 MTPA. Following achievement of COD of Phase III by 30th September, 2026, which expands the capacity to 11.2 MTPA, the relevant tariff applicable will be from the third year onwards as detailed in Annexure-A, or as determined in a subsequent tariff petition for enhanced capacity.

Table I – Determined Composite Tariff for 7.6 MTPA expanding to 11.2 MTPA Capacity Mine

Project Tariff	Year 1 – 10 Average	Year 11 – 30 Average	Year 1 – 30 Levelized
Total Production Payment Components	15.9329	13.6052	15.5360
Total Capacity Payment Components	22.1449	10.4240	19.2342
Total Project Tariff	**38.0778**	**24.0292**	**34.7702**

All amounts in USD per tonne

Table II – Production Payment Component for 7.6 MTPA expanding to 11.2 MTPA Capacity Mine

Project Tariff	Year 1 – 10 Average	Year 11 – 30 Average	Year 1 – 30 Levelized
Fuel Cost	5.4917	4.8481	5.4439
Variable O&M	1.2727	1.2345	1.2606
Spares/Consumables	2.9846	2.8696	3.0083
Asset Replacement Cost	3.5273	2.9530	3.3974
Royalty	2.6566	1.6999	2.4258
Total Production Payment	**15.9329**	**13.6052**	**15.5360**

All amounts in USD per tonne

Table III – Capacity Payment Component for 7.6 MTPA expanding to 11.2 MTPA Capacity Mine

Project Tariff	Year 1 – 10 Average	Year 11 – 30 Average	Year 1 – 30 Levelized
Fixed O & M - Foreign	2.3048	1.8623	2.2678
Fixed O & M - Local	2.7295	2.1696	2.6215
Insurance	0.5299	0.4795	0.5237
Power Cost	1.4758	1.3708	1.4674
Working Capital	1.5644	1.4167	1.5462
Principal Repayment	4.5874	-	3.2328
Interest Payment	3.6222	-	2.5771
ROE	3.7767	2.2211	3.5421
ROEDC	1.5542	0.9040	1.4555
Total Capacity Payment	**22.1449**	**10.4240**	**19.2342**

All amounts in USD per tonne

THAR COAL AND ENERGY BOARD GOVERNMENT OF SINDH

GENERAL CONDITIONS

i. The reference tariff is computed on the basis of net coal extraction capacity of 7.6 MTPA until COD for expansion to 11.2 MTPA is achieved by 30th September 2026. The first two years of the tariff as detailed in Annexure A will be applicable till the time capacity is 7.6 MTPA. Tariff as detailed in Annexure A from the Third year onwards will be applicable for enhanced capacity of 11.2 MTPA. The same may be updated in a subsequent COD tariff determination for enhanced capacity.

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) as slated for September 30, 2026.

iii. The cost of financing for Phase II is based upon 6-months KIBOR + 1.75% for local financing guaranteed by sovereign debt, and at 6-months LIBOR + 2.5%, for local financing that is not guaranteed by sovereign debt. Tariff is computed on basis of PKR 24.19 billion local debt. Debt assumed for Phase I continues at original terms as approved earlier.

iv. The basis of this determination is a Debt-to-Equity ratio of 75:25.

v. Debt assumed for Phase II will be serviced, and repaid within 10 years post-COD, with semi-annual repayments.

vi. The reference 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 75 days of receivables (reducing from 120 days earlier given improvement in overall liquidity), 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. The Petitioner is entitled to indexations in accordance with the mechanisms laid down under the 'REFERENCE TARIFF INDEXATIONS' section of this document.

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

REFERENCE TARIFF INDEXATIONS

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

i. Fuel Cost

$$\text{Fuel Cost}_{(rev)} = \text{Fuel Cost}_{x} \times \frac{\text{Diesel Price}_{(rev)}}{253.52}$$

Where,

Fuel Cost$_{(rev)}$ is the revised Fuel Cost Component
Fuel Cost$_x$ is the Fuel Cost of 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)
Frequency of indexation shall be on a quarterly basis, based on prices as notified by Oil & Gas Regulatory Authority

ii. Variable O&M

$$\text{Variable O\&M}_{(rev)} = \text{Variable O\&M}_{x} \times \frac{\text{US CPI}_{(rev)}}{315.30} \times \frac{\text{PKR/USD}_{(rev)}}{278.05} \times \frac{7.017}{\text{RMB/USD}_{(rev)}}$$

Where,
Variable O&M$_{(rev)}$ is the revised Variable O&M Component
Variable O&M$_x$ is the Variable O&M Component of x^{th} year of operations
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

iii. Asset Replacement

$$\text{Asset Replacement}_{(rev)} = \text{Asset Replacement}_{x} \times \frac{\text{US CPI}_{(rev)}}{315.30} \times \frac{\text{PKR/USD}_{(rev)}}{278.05} \times \frac{7.017}{\text{RMB/USD}_{(rev)}}$$

Where,
Asset Replacement$_{(rev)}$ is the revised Asset Replacement Component
Asset Replacement $_x$ is the Asset Replacement Component of x^{th} year of operations
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

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

Where,
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

$$\text{Fixed O\&M} - \text{Local}_{(rev)} = \text{Fixed O\&M} - \text{Local}_x \times \frac{\text{Local CPI}_{(rev)}}{260.96}$$

Where,
Fixed O&M – 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

$$\text{Fixed O\&M Foreign}_{(rev)} = \text{Fixed O\&M Foreign}_x \times \frac{\text{US CPI}_{(rev)}}{315.30} \times \frac{\text{PKR/USD}_{(rev)}}{278.05} \times \frac{7.017}{\text{RMB/USD}_{(rev)}}$$

Where,
Fixed O&M – 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
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

$$\text{Power Cost} - \text{By Diesel}_{(rev)} = \text{Power Cost} - \text{By Diesel}_{x} \times \frac{\text{Diesel Price}_{(rev)}}{253.52} \times \frac{\%\ \text{of Diesel}_{(rev)}}{85.29\%}$$

Where,
Power Cost – By Diesel 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
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 Diesel$_{(rev)}$ is the percentage of power generated by Diesel in x^{th} year of operations
Frequency of indexation shall be on a quarterly basis, based on prices as notified by Oil & Gas Regulatory Authority

viii. Cost of Working Capital

$$WC_{(rev)} = WC_x \times \left(a_x \frac{\text{Prod Pmt}_{(rev)}}{\text{Prod Pmt}_x} + b_x \frac{\text{Coal}_{(rev)}}{\text{Coal}_x} + c_x \frac{\text{Diesel}_{(rev)}}{253.52} + d_x \frac{\text{US CPI}_{(rev)} \times \text{PKR/USD}_{(rev)} \times 7.017}{315.30 \times 278.05 \times \text{RMB/USD}_{(rev)}}\right) \times \frac{\text{KIBOR}_{(rev)} + 2.00\%}{19.64\%}$$

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 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
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

ix. Interest Payments – Local Phase II (Sovereign Guarantee)

$$\text{Interest} - \text{Local}_{(rev)} = \text{Interest} - \text{Local}_{x} \times \frac{\text{KIBOR}_{(rev)} + 1.75\%}{16.95\%}$$

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.

x. Interest Payments – Local Phase II (Non-Sovereign Guarantee)

$$\text{Interest} - \text{Local}_{(rev)} = \text{Interest} - \text{Local}_x \times \frac{\text{KIBOR}_{(rev)} + 2.5\%}{17.70\%}$$

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.

xi. Interest Payments - Foreign

Since Phase II does not have any foreign debt, any indexation for interest payments pertaining to foreign debt will be as per COD Stage Determination of Phase I.

xii. Equity Returns

$$\text{Equity Returns}_{(rev)} = \text{Equity Returns}_x \times \frac{\text{PKR/USD}_{(rev)}}{278.05}$$

Where,
Equity 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 be quarterly.

xiii. Cost of Transportation

$$\text{Cost of Transportation}_{(rev)} = \text{Cost of Transportation}_x \times \frac{\text{Diesel Price}_{(rev)}}{253.52}$$

Where,
Cost of 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 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 on a quarterly basis, based on prices as notified by Oil & Gas Regulatory Authority

xiv. 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 – 30 of 11.31975 MJ / Kg

Indexation shall be computed annually.

THAR COAL AND ENERGY BOARD * GOVERNMENT OF SINDH *

ANNEXURE A – TARIFF TABLE SECMC PHASE II 7.6 MTPA EXPANDING TO 11.2 MTPA:

Yearly Profile for Coal Price of 7.6 MTPA Mine expanding to 11.2 MTPA Capacity in (USD/tonne)

	PRODUCTION (VARIABLE) PAYMENTS						CAPACITY (FIXED) PAYMENTS										
Year	Fuel Cost	Variable O&M - Site Services	Spares / Consumables	Asset Replacement	Royalty	Total Production Payments	Fixed O & M - Foreign	Fixed O & M - Local	Insurance	Power Cost	Working Capital	Principal Repayment	Interest Payment	ROE	ROEDC	Total Capacity Payments	Total
1	6.8742	0.8921	3.2655	3.6645	3.2399	**17.9361**	3.9283	3.7929	0.5498	1.8956	1.6804	4.9657	4.5177	5.0822	2.0900	28.5026	**46.4387**
2	6.4489	0.7805	3.1260	3.6645	3.1645	**17.1843**	3.8359	3.6628	0.5498	1.8956	1.6107	5.4830	3.9632	5.0822	2.0900	28.1732	**45.3575**
3	6.3551	1.7568	3.5105	3.4930	2.8023	**17.9177**	2.0381	2.6786	0.5249	1.3708	1.8241	4.2853	4.6562	3.4504	1.4203	22.2486	**40.1664**
4	6.1078	1.7345	3.3446	3.4930	2.7510	**17.4310**	2.0054	2.5223	0.5249	1.3708	1.7651	3.9301	5.0115	3.4504	1.4203	22.0006	**39.4316**
5	5.6290	1.5336	3.1308	3.4930	2.6818	**16.4681**	1.9629	2.6480	0.5249	1.3708	1.6519	4.3854	4.5561	3.4504	1.4203	21.9707	**38.4388**
6	4.7870	1.2211	2.7271	3.4930	2.5292	**14.7574**	1.8672	2.4736	0.5249	1.3708	1.4455	4.9097	4.0318	3.4504	1.4203	21.4941	**36.2515**
7	4.7870	1.2211	2.7271	3.4930	2.5288	**14.7570**	1.8669	2.4688	0.5249	1.3708	1.4454	5.5151	3.4264	3.4504	1.4203	21.4889	**36.2459**
8	4.5883	1.1720	2.6381	3.4930	2.4946	**14.3860**	1.8453	2.4153	0.5249	1.3708	1.4022	6.2161	2.7254	3.4504	1.4203	21.3706	**35.7566**
9	4.6947	1.2166	2.6995	3.4930	2.3015	**14.4052**	1.8555	2.3864	0.5249	1.3708	1.4214	4.2412	1.9115	3.4504	1.4203	18.5823	**32.9875**
10	4.6450	1.1987	2.6770	3.4930	2.0723	**14.0860**	1.8427	2.2464	0.5249	1.3708	1.3978	1.9420	1.4219	3.4504	1.4203	15.6171	**29.7031**
11	5.0770	1.3103	2.9407	3.4930	2.1497	**14.9707**	1.8912	2.3152	0.5249	1.3708	1.5047	2.3702	0.9937	3.4504	1.4203	15.8412	**30.8119**
12	4.9174	1.2433	2.8972	3.4930	2.1203	**14.6712**	1.8725	2.2470	0.5249	1.3708	1.4694	2.8961	0.4678	3.4504	1.4203	15.7191	**30.3903**
13	5.0297	1.2701	2.9612	3.1340	1.8537	**14.2487**	1.8814	2.2048	0.5249	1.3708	1.4684	0.0000	0.0000	3.4504	1.4203	12.3208	**26.5695**
14	5.0557	1.3013	2.9867	3.1340	1.8600	**14.3378**	1.8852	2.1906	0.5249	1.3708	1.4808	0.0000	0.0000	3.4504	1.4203	12.3229	**26.6607**
15	4.9599	1.2612	2.9440	3.1340	1.8424	**14.1415**	1.8741	2.1695	0.5249	1.3708	1.4570	0.0000	0.0000	3.4504	1.4203	12.2669	**26.4084**
16	4.5803	1.1630	2.7329	3.1340	1.7761	**13.3862**	1.8325	2.1059	0.5249	1.3708	1.3669	0.0000	0.0000	3.4504	1.4203	12.0716	**25.4578**
17	4.9753	1.2612	2.9505	3.1340	1.8455	**14.1664**	1.8761	2.1835	0.5249	1.3708	1.4598	0.0000	0.0000	3.4504	1.4203	12.2857	**26.4521**
18	5.1766	1.3192	3.0980	3.1340	1.8816	**14.6093**	1.8984	2.1810	0.5249	1.3708	1.5145	0.0000	0.0000	3.4504	1.4203	12.3602	**26.9695**
19	5.1811	1.3225	3.1013	3.1340	1.8824	**14.6213**	1.8990	2.1791	0.5249	1.3708	1.5160	0.0000	0.0000	3.4504	1.4203	12.3605	**26.9817**
20	5.2662	1.3582	3.1393	3.1340	1.8984	**14.7961**	1.9090	2.2013	0.5249	1.3708	1.5373	0.0000	0.0000	3.4504	1.4203	12.4139	**27.2099**
21	5.2024	1.3314	3.1108	3.1340	1.8864	**14.6650**	1.9015	2.1847	0.5249	1.3708	1.5213	0.0000	0.0000	3.4504	1.4203	12.3738	**27.0388**
22	4.9789	1.2377	2.9916	3.1340	1.8448	**14.1869**	1.8755	2.1514	0.5249	1.3708	1.4626	0.0000	0.0000	3.4504	1.4203	12.2558	**26.4427**
23	4.9182	1.2147	2.9595	3.1340	1.5436	**13.7700**	1.8686	2.1419	0.5249	1.3708	1.4353	0.0000	0.0000	0.7546	0.2590	8.3550	**22.1250**
24	4.9076	1.2103	2.9408	3.1340	1.5414	**13.7341**	1.8673	2.1527	0.5249	1.3708	1.4304	0.0000	0.0000	0.7546	0.2590	8.3596	**22.0937**
25	4.6565	1.2013	2.7444	3.1340	1.4998	**13.2359**	1.8413	2.1395	0.5249	1.3708	1.3714	0.0000	0.0000	0.7546	0.2590	8.2615	**21.4974**
26	4.8054	1.2638	2.8109	3.1340	1.5276	**13.5417**	1.8588	2.1776	0.5249	1.3708	1.4085	0.0000	0.0000	0.7546	0.2590	8.3542	**21.8959**
27	4.9438	1.3219	2.8727	3.1340	1.4769	**13.7491**	1.8748	2.2090	0.5249	1.3708	1.4398	0.0000	0.0000	0.0000	0.0000	7.4193	**21.1685**
28	4.2355	1.0451	2.4870	3.1340	1.3461	**12.2476**	1.7931	2.1018	0.5249	1.3708	1.2559	0.0000	0.0000	0.0000	0.0000	7.0465	**19.2941**
29	4.1870	1.0451	2.4515	0.9652	1.1342	**9.7829**	1.7881	2.0947	0.0716	1.3708	1.1485	0.0000	0.0000	0.0000	0.0000	6.4736	**16.2565**
30	3.9077	1.0094	2.2714	0.9652	1.0875	**9.2412**	1.7588	2.0604	0.0716	1.3708	1.0847	0.0000	0.0000	0.0000	0.0000	6.3463	**15.5874**
																Levelized Tariff	**34.7702**