Black is Back
Deciphering the Coal Block Auction
Assessment of coal block auction process and its impact on revenue to exchequer & power tariffs

March 2015 | RBSA - Research Initiative
To mop up the fracas created by the unscrupulous & self discretionary distribution of coal blocks, by the Central Government & the Screening Committee alike, the Hon’ble Supreme Court of India had de-allocated the 204 coal blocks allocated over the years to various beneficiaries. This prompted the Government to swiftly notify interested parties through ‘The Coal Mines (Special Provisions) Ordinance, 2014. Thereafter, the GoI had notified the various rules for auction as well as methodology for fixing floor/reserve price in auction/allotment of coal blocks on December 11, 2014 & December 26, 2014 respectively in line with the provisions under the Coal Mines (Special Provisions) Ordinance 2014. All allocation of Schedule I & II mines are to completed by 31st March, 2015 to ensure no bottlenecks or logjam in the supply of coal to its consumers.

One of the rules was that blocks/mines are to be allocated on the basis of the end use of such coal, ala regulated & non-regulated. Regulated being the power sector, and unregulated being cement, aluminum & steel. The government has introduced the method of auctioneering to obtain such blocks for coal mining to achieve its target of revenue maximization. The process of auctioneering designed by the government is, in the case of the regulated sector where it follows the model of Reverse Bidding. Whereas, for the non-regulated sector, the model followed is of Forward Bidding.

The Government has generated a process which is essentially, a two stage process comprising technical & financial bid. The technical bid is designed to disqualify those parties which are not technically competent to procure & optimally utilize such coal block reserves. The financial bidding stage is more akin to a traditional auction, where the highest or the lowest bid (incase of reverse bidding) is the winning bid & the party making such bid emerges victorious. The first round of auctions have been completed with outrageous results. Other blocks allocated to different schedules are to come up for auction.
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India is one of the largest coal producers in the world. India produced 588 Mt of coal in 2011 making it third largest coal producer in the world. As per International Energy Agency Report, Nearly 68% of the India’s total energy requirement is met from Coal which is much higher than global average of 41%. Apart from Electricity, coal is used extensively in Steel and Cement Industry.

**Production of Coal in 2011 (in Mt)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Production (Mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>3471</td>
</tr>
<tr>
<td>India</td>
<td>585</td>
</tr>
<tr>
<td>Australia</td>
<td>414</td>
</tr>
<tr>
<td>Indonesia</td>
<td>376</td>
</tr>
<tr>
<td>Russia</td>
<td>334</td>
</tr>
<tr>
<td>South Africa</td>
<td>253</td>
</tr>
<tr>
<td>Germany</td>
<td>189</td>
</tr>
<tr>
<td>Poland</td>
<td>139</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>117</td>
</tr>
</tbody>
</table>

*Source: International Energy Agency 2012*

As per a report by Geological Survey of India (GSI), the estimated coal reserves as on 1st April, 2014 amounted to 301.56 billion tonnes. Following are the category of reserves:

**State wise Coal Reserve**

<table>
<thead>
<tr>
<th>State</th>
<th>Reserves (Bn. Tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODISHA</td>
<td>3.64%</td>
</tr>
<tr>
<td>JHARKHAND</td>
<td>10.38%</td>
</tr>
<tr>
<td>CHATTISHGARH</td>
<td>24.89%</td>
</tr>
<tr>
<td>MADHYA PRADESH</td>
<td>26.76%</td>
</tr>
<tr>
<td>WEST BENGAL</td>
<td>17.42%</td>
</tr>
<tr>
<td>MAHARASTRA</td>
<td>8.51%</td>
</tr>
<tr>
<td>ANDHRA PRADESH</td>
<td>7.45%</td>
</tr>
<tr>
<td>OTHERS</td>
<td>0.93%</td>
</tr>
</tbody>
</table>

*Source: Geological Survey of India (GSI) and Central Mine Planning & Design Institute Limited (CMPDI)*
**Introduction - Coal Mining in India - Key Events**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre 1971</td>
<td>• Pre nationalization era of coal industry.</td>
</tr>
<tr>
<td></td>
<td>• Private participation in coal mining was allowed.</td>
</tr>
<tr>
<td>1971-1972</td>
<td>• Nationalization of coking coal mines.</td>
</tr>
<tr>
<td></td>
<td>• Enactment of Coking Coal Mines (Nationalization) Act, 1972</td>
</tr>
<tr>
<td>1973</td>
<td>• Nationalization of non coking coal mines.</td>
</tr>
<tr>
<td>1993</td>
<td>• The Coal Mines (Nationalization) Amendment Act, 1993 was passed which allowed Indian Companies to carry out coal mining for their captive use.</td>
</tr>
<tr>
<td>1993-2009</td>
<td>• The allocation of coal blocks was made by Ministry of Coal based on either the recommendations of Screening Committee under the chairmanship of Secretary (Coal) or through direct allocation</td>
</tr>
<tr>
<td>March 2014</td>
<td>• Comptroller and Auditor General of India (CAG) office accused the Government of India of allocating coal blocks in an inefficient manner during the period 2004–2009.</td>
</tr>
<tr>
<td>24th September 2014</td>
<td>• The Supreme Court of India through its judgment cancelled allotment of 204 coal blocks.</td>
</tr>
<tr>
<td>Dec 2014</td>
<td>• Subsequent to the Supreme Court Judgment, the Ordinance was enacted and the Rules were framed for auction and allotment of all blocks.</td>
</tr>
<tr>
<td>Jan 2015</td>
<td>• Commencement of E-Auction of Coal Mines</td>
</tr>
</tbody>
</table>

On September 24th 2014, the Hon’ble Supreme Court of India (SC) de-allocated 204 of the 218 coal blocks allocated earlier through the Screening Committee/Government dispensation routes. Subsequent to the de-allocation of the 204 coal blocks by the Supreme Court (SC) of India in September 2014, the Government of India (Government of India) has notified “The Coal Mines (Special Provisions) Ordinance, 2014” on October 21, 2014 with an objective of providing guidelines for allocation of coal blocks as well as ensuring continuity in coal mining operations & production of coal from the affected blocks.

Of the 204 de-allocated blocks, the immediate task at hand for the Government remains the re-distribution, through auctioning or allocation, of the 42 operational blocks before March 31, 2015, after which mining would not be allowed by the prior allottees. With these 42 blocks having a rated mine capacity of 80.9 million tonne per annum (MTPA) (~11% of current domestic coal demand), any delay in the auctioning or allocation process would exacerbate the already tight domestic coal availability scenario in the near to medium term.
**Allotment of Mines:**

The Coal Ministry aimed to auction or allot 110 coal mines. Of these, 65 will be auctioned and 45 allotted to state-owned firms in a process to be completed before the end of the current fiscal year. The 110 mines up for grabs have around 350 million tonnes of reserves. Of these, 42 blocks with a production capacity of 90 million tonnes (mt) are operational.

**Bifurcation of Mines:**

**Schedule II coal mines:**

Schedule II coal mines (42 blocks) are those that were operational at the time when the allocations were cancelled and the Supreme Court had permitted the continuation of their operations by the Allottees up to 31 March, 2015.

**Schedule III mines:**

Schedule III mines (32 other mines) are those that were nearly operational when the allocations were cancelled. Companies were allowed to bid for Schedule II mines (i.e. operational coal mines) where the bidder had incurred an expenditure of not less than 80 percent of the Total Project Cost of the unit or phase of the specified end-use plant for which the company is bidding.

Whereas bid for **Schedule III mines** were allowed where the bidder had **incurred an expenditure of not less than 60 per cent of the Total Project Cost** of the unit of the specified end-use plant.
Government has adopted twin methods of bidding, Forward bidding in case of end user are into production of Iron & Steel, Cement and Captive power. Reverse bidding where end user is into power generation.

**Forward Bidding:**
In case of non-regulated sectors (Iron & Steel, Cement and Captive Power), the forward bidding methodology is proposed where in bidders have to quote the bid price above the floor price. The bid price would be considered as base for the year of bidding and would be escalated linked to a reference index. Forward bidding process is design to maximize the revenue for government.

**Reverse Bidding:**
Under the reverse bidding process approved for power sector, bidders are required to quote bid price which is at a discount to the ceiling price and the bidder with the lowest bid price shall be the winner. The ceiling price is fixed at the notified price for equivalent grade coal by Coal India Ltd. Purpose of reverse bidding is to cap the power tariff and pass the benefit to end consumers.
Tender Process – Brief Overview

**Payment Structure**
- **Non Refundable App Fees**: INR 5,00,000 per Application
- **Refundable Bid Security**: 2% of NPV of coal mine
- **Performance Security**: One year royalty payable + (Final price offer * annual peak capacity of coal mine)

**Stages of Application**
1. **Submit E-Tender Application**
2. **Submit Technical Bid**
   - To ensure that applications are made by power producers
   - If Qualifies
   - Application approved by Central Government
   - Non Qualified
   - Out of Bidding
3. **Submit the Financial Bid**
   - Forward/Reverse Bidding Mechanism
   - There should be more than 2 Technically Qualified bidders else process will be cancelled
4. **Preferred Bidder**
   - Highest/Lowest Bidder
   - Application rejected by Central Government
5. **Successful Bidder**
   - Application approved by Central Government
6. **Issuance of Vesting Offer**
7. **Execution of Agreement and Production of Coal**

**Payment Schedule**
- **Fixed Amount**: value of land and mine infra, cost of geological report, statutory licences, approvals and transaction expenses.
- **Upfront Payment**
  - **Non Power Applicant**: 10% of NPV calculated from DCF method using CIL notified price for coal.
  - **Power Sector Applicant**: 10% of the higher of:
    - NPV calculated from DCF method using CIL notified price for coal.
    - NPV calculated from DCF method using reserve price of coal.

**Royalty to State Govt**
- **Non Power Applicant**: Winning Bid Quote/tonne
- **Power Sector Applicant**: (100+Winning Bid Quote)/tonne

**Coal charge will be revise yearly based on WPI Inflation**

**Periodic Payment to State Govt**
- **Non Power Applicant**: Winning Bid Quote/tonne
- **Power Sector Applicant**: (100+Winning Bid Quote)/tonne

**Payment Structure**
- **Non Refundable App Fees**: INR 5,00,000 per Application
- **Refundable Bid Security**: 2% of NPV of coal mine
- **Performance Security**: One year royalty payable + (Final price offer * annual peak capacity of coal mine)
E-Tender Application: In order to participate in the tender process, each Bidder shall be required to make a non-refundable payment of INR 5,00,000 per e-tender application to MSTC Ltd (A Government of India Enterprise, handling ongoing Coal Mine Auction Process). Upon payment of the non-refundable fee, the Bidder shall be eligible to participate in the technical bidding stage.

Technical Bidding Stage: During Technical Bidding stage, Bidders would be required to provide details regarding compliance with the eligibility conditions. Bidders would also be required to pay refundable bid security which is 2% of NPV of coal mine. Nominated authority will evaluate the technical bids submitted by the applicants against the eligibility conditions. The applicants who satisfy the eligibility conditions will be shortlisted for financial bidding stage. There should be at least two qualified bidders at the end of Technical Evaluation stage, else the entire bidding process will be cancelled.

Financial Bidding Stage: Technically qualified bidders will be asked to participate in financial bidding process where they will submit Initial Price Offer (IPO). There are two bidding mechanisms in financial bidding process: Reverse bidding for Power Sector and Forward mechanism for non-power sector. The IPOs will be ranked on the basis of decreasing/increasing price in forward/reverse bidding mechanism. Top 50% bidders shortlisted in IPO shall be allowed to participate in Final Price Offer (FPO) stage. The applicable floor or ceiling price for FPO stage shall be highest/lowest IPO quote in forward/reverse mechanism. The Qualified Bidder that submits the highest/lowest Price (Forward/Reverse Mechanism) Offer during the electronic auction process shall be declared as the “Preferred Bidder”.

The Nominated Authority shall recommend the name of the Preferred Bidder to the Central Government. Upon receipt of an approval from the Central Government, the Preferred Bidder shall be declared as the “Successful Bidder”. In the event that the Nominated Authority or the Central Government determines that a Preferred Bidder should not be declared the Successful Bidder on account of any reason whatsoever, including without limitation the withdrawal of the Preferred Bidder from the auction process for the Coal Mine or the Preferred Bidder ceasing to comply with the Eligibility Conditions, then the Coal Mine may be subjected to re-auction or being granted to the custody of a Designated Custodian, and this tender process may be annulled.

Upon receipt of Performance Security and fixed amount the Vesting Order shall be issued by the Nominated Authority to the Successful Bidder. Fixed amount consist of value of Land and Mine Infrastructure, cost of preparation of geological report borne by the Prior Allottee, cost of obtaining all statutory licenses, permits, permissions, approvals, clearances or consents relevant to the mining operations, borne by the Prior Allottee, and the Transaction Expense. Upfront amount for non-power applicant is 10% of NPV calculated from DCF method using CIL notified price for coal and for power sector applicant is 10% of the higher of NPV calculated from DCF method using CIL notified price for coal or NPV calculated from DCF method using reserve price of coal. During the operational period, coal operator will have to make periodic payment and royalty payment to the government. Non-power mine operator shall be liable to pay winning bid quote per tonne of coal mined. Power mine operator shall be liable to pay (100+Winning Bid quote) per tonne of coal mined. These Coal charges will be revised every year based on WPI Inflation data. Along with periodic payment mine operator will pay royalty at 14% ad-valorem to state government.
Financial Bidding – Forward Mechanism (Non-Regulated Sector)

Technically Qualified Bidder

Initial Price Offer (IPO)
Initial Price offer should be higher than the floor price where Floor Price: Higher of INR 150/ton or 90% of NPV of coal mine/extractable coal reserve

Stage 1: Initial Price Offer

Processing of Initial Price Offers (IPO)
All bids shall be ranked in descending order
50% of the top ranks or top 3/4/5 ranks whichever is higher are shortlisted for next round.
In case there are two or less bidders, No bidder qualifies

Shortlisted Bidder 1
Shortlisted Bidder 1
Shortlisted Bidder n

FPOs from shortlisted bidders on Electronic Platform

Stage 2: Final Price Offer

Processing of Final Price Offers (FPO)
• Final Price offer should be higher than the highest initial price offer
• Bidder with Highest Final Price offer is termed as preferred bidder

Preferred Bidder

Coal Production

Payment to State Government

Monthly Coal Charge
Winning Bid Quote/tonne
Coal charge will be revise yearly based on WPI Inflation

Royalty Payment
Royalty payable at 14% ad-valorem

Black is Back : Deciphering the Coal Block Auction
Case Study – Forward Bidding (Non-Regulated Sector)

SIAL GHOGRI MINE
State: Madhya Pradesh
Geological Block Area : 429 hectare
Geological Reserves : 29.38 MT
Extractable Reserves : 5.69 MT
Previous Allocatee: Prism Cements Ltd
Nature of End Use: Cement
Status: Mining Plan, Forest Clearance and Environmental Clearance Received

Technically Qualified Bidders
Reliance Cement
Hindustan Zinc
OCL Iron and Steel

Payment to State Government
Coal Charge
First Year= 1402/ton
For Subsequent years coal price will be revised on WPI data

Royalty Payment
Royalty payable at 14% ad-valorem

Reliance Power as successful bidder

Financial Bidding
Forward Mechanism

FPO Processing
Highest bid from Reliance Cement @ INR 1402/ton

Initial Price Offer
Reliance Cement, Hindustan Zinc and OCL Iron and Steel

Final Price Offer
**Tender Process - Forward Mechanism and Case Study**

**Forward Bidding Mechanism (For Non Power Sector Applicants)**

Forward bidding mechanism will be used in non-regulated sectors. Bidders who qualify in technically stage will be asked to participate in financial bidding process. Financial Bidding process will comprise of two rounds. In the first round the *Initial Price Offer (IPO)* of the Technically Qualified Bidders would be opened ranked on the basis of the descending order. Based on such ranking, the Technically Qualified Bidders, holding first fifty per cent of the ranks or five Technically Qualified Bidders, whichever is higher, shall be considered to be qualified for participating in the electronic auction (FPO stage).

Provided however that:

(i) In the event that the total number of Technically Qualified Bidders is less than three then no Technically Qualified Bidder shall be considered to be Qualified Bidder(s).

(ii) In the event the number of Technically Qualified Bidders is between three and five, then each of the Technically Qualified Bidders shall be considered to be the Qualified Bidders.

The Applicable Floor Price for *Final Price Offer (FPO)* stage shall be the highest Initial Price Offer received from the Technically Qualified Bidders. The Qualified Bidders shall be permitted to place their Final Price Offer on the electronic auction platform, which is higher than the Applicable Floor Price. The Qualified Bidder that submits the highest Price Offer during the electronic auction process shall be declared as the “Preferred Bidder”.

**Forward Bidding Case: Reliance Cement**

Let us take the case of Reliance Cement, which has successfully won the Sial Ghogri coal mine in Madhya Pradesh at a bid price of Rs. 1402/ton on 14th February, 2015. Sial Ghogri is a coal block for the unregulated sector, having geological reserves of 29.38 million tonnes. For the regulated sector, a policy of forward bidding/auction i.e. the highest bid wins, is to be followed as per the guidelines of the Government of India. There were three technically qualified bidders namely Reliance Cement, Hindustan zinc and OCL Iron & Steel. Among these qualified bidders, Reliance Cement made the highest quote of INR 1402/ton.

During the operational period, Reliance power shall pay periodic payment of INR 1402/ton of coal extracted. Along with this periodic payment, Reliance Cement will have to pay royalty at 14% ad-valorem.

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“Reliance Cement bags coal block at e-auction, Birlas lose theirs to GMR”

*Business Standard - Feb 14, 2015*
Financial Bidding - Reverse Mechanism (Power Sector)

**Technically Qualified Bidder**

**Initial Price Offer (IPO)**

*Initial Price offer should not be higher than the ceiling price notified by Coal India Ltd*

**Stage 1: Initial Price Offer**

**Processing of Initial Price Offers (IPO)**

*All bids shall be ranked in ascending order*

*50% of the top ranks or top 3/4/5 ranks whichever is higher are shortlisted for next round.*

- Shortlisted Bidder 1
- Shortlisted Bidder 1
- Shortlisted Bidder n

**Stage 2: Final Price Offer**

**Processing of Final Price Offers (FPO)**

- Final Price offer should not be higher than the lowest initial price offer
- Bidder with Lowest Final Price offer is termed as preferred bidder

**Periodic Payment to State Govt**

- **Monthly Coal Charge**
  
  (100+Winning Bid Quote)/tonne
  
  For Subsequent years coal price will be revised on WPI data

**Energy Charge in PPA**

- **Monthly Coal Charge**
  
  (100+Winning Bid Quote)/tonne
  
  For Subsequent years coal price will be revised on WPI data

**Coal Production**

**Preferred Bidder**

FPOs from shortlisted bidders on Electronic Platform
Energy Charge in Tariff and P&L (A Hypothetical Case)

We have taken a hypothetical case to demonstrate effect of reverse bidding on energy charge in tariff and P&L.

Case assumes CIL notified coal price at INR 1000/tonne and lowest bidder winning the mine by quoting lowest bid at INR 300/tonne.

In Reverse only auction process, coal charge at INR 300/tonne will be paid to state government (part of P&L) as well it will be part of energy charge in tariff calculation as per CERC guidelines. All other coal related charges like cost of mining, reserve price, royalty, cess and transport cost will be part of both P&L and tariff calculation.

In this type of auction method, there would be no under recovery as power producer would be able to pass all coal related cost to consumer.
Financial Bidding - Reverse + Forward Mechanism (Power Sector)

**Initial Price Offer (IPO)**
- Initial Price offer should not be higher than the ceiling price notified by Coal India Ltd

**Stage 1: Initial Price Offer**
- All bids shall be ranked in ascending order
- 50% of the top ranks or top 3/4/5 ranks whichever is higher are shortlisted for next round.

**Processing of Initial Price Offers (IPO)**
- Shortlisted Bidder 1
- Shortlisted Bidder 1
- Shortlisted Bidder n

**Stage 2: Final Price Offer**
- Final Price offer should not be higher than the lowest initial price offer
- Bidder with Lowest Final Price offer is termed as preferred bidder

**Processing of Final Price Offers (FPO)**
- Multiple Bidders with bid of INR 0/ton

**FPOs from shortlisted bidders on Electronic Platform**

**Payment to State Government**
- Monthly Coal Charge: \((100+\text{Winning Bid Quote})/\text{ton}\)
  - For Subsequent years, coal price will be revised on WPI data

**Fuel Charge**
- INR 100/ton
  - For Subsequent years, coal price will be revised on WPI data

**Coal Production**

**Preferred Bidder**

**Pass-through Mechanism**

**Highest Bidder**

**Type of negative bidding where shortlisted bidders will bid for at higher price. Bidding price should be more than Floor price**

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Tender Process-Reverse + Forward Mechanism

Reverse and then Forward Bidding Mechanism (For Power Sector Applicants)

Technically qualified bidders will be asked to participate in financial bidding process. Financial Bidding process will comprise of two rounds. In the first round the Initial Price Offer (IPO) of the Technically Qualified Bidders would be opened ranked on the basis of the ascending order. Based on such ranking, the Technically Qualified Bidders, holding first fifty per cent of the ranks or five Technically Qualified Bidders, whichever is higher, shall be considered to be the qualified for participating in the electronic auction (FPO stage).

Provided however that: (i) In the event that the total number of Technically Qualified Bidders is less than three then no Technically Qualified Bidder shall be considered to be Qualified Bidder(s). (ii) In the event the number of Technically Qualified Bidders is between three and five, then each of the Technically Qualified Bidders shall be considered to be the Qualified Bidders.

The Applicable Floor Price for Final Price Offer (FPO) stage shall be the lowest Initial Price Offer received from the Technically Qualified Bidders. The Qualified Bidders shall be permitted to place their Final Price Offer on the electronic auction platform, which is lower than the Applicable Floor Price. The Qualified Bidder that submits the Lowest Final Price Offer during the electronic auction process shall be declared as the “Preferred Bidder”.

However, it is possible that there could be more than one bidder placing bids at INR 0/ton. To break this stalemate, forward bidding/auction methodology is adapted to ensure fair disposal of the country’s resources. It is imperative to know that even though a forward bidding/auction process is undertaken, the energy charge that can be passed onto the end user is still at the lowest bid price in the reverse auction i.e. INR 0. In forward bidding process, the bidder who put the highest bid is declared as the “Preferred Bidder”. Preferred bidder will pay periodic payment to state government based on winning quote but he will passed INR 0/ton as energy charge in tariff calculation.
**Case study – Essar Power M.P. Ltd.**

**Tokisud North block**
- State: Jharkhand
- Geological Block Area: 580 hectare
- Geological Reserves: 103.24 MT
- Extractable Reserves: 51.97 MT
- Previous Allocatee: GVK Power
- Nature of End Use: Power
- Status: Mining Plan, Forest Clearance and Environmental Clearance Received

**Technically Qualified Bidders**
- Adani Power Limited
- Dhariwal Infrastructure Limited
- DB Power Limited
- Essar Power
- GMR
- GVK Power
- India Power Corp (Haldia) Ltd
- JP Power Ventures Ltd
- Jindal Power Limited
- Lanco Amarkantak Power Ltd

**Payment to State Government**
- **Monthly Coal Charge**
  - $(100 + 1110)/$ ton
  - For Subsequent years coal price will be revised on WPI data
- **Royalty Payment**
  - Royalty payable at 14% ad-valorem

**Pass-through Mechanism**
- **Monthly Coal Charge**
  - $(100)/$ ton
  - For Subsequent years coal price will be revised on WPI data
- **Royalty Payment**
  - Royalty payable at 14% ad-valorem

**Reverse Bidding**

**Initial Price Offer**
- Essar Power, Jindal Power & Adani Power bid @ INR 0 per ton

**Financial Bidding**

**Forward Bidding**
- Conversion to forward bidding

**Final Price Offer**
- Highest bid from Essar @ 1110/ton

**Coal Production**

**Essar Power as successful bidder**
Let us take the case of Essar Power Ltd. (“EPL”), which has successfully won the Tokisud North coal mine in Jharkhand at a bid price of Rs. 1,110 on 17th February, 2015. Tokisud North is a coal block for the regulated power sector, having reserves of 103.24 million tonnes.

For the regulated sector, a policy of reverse bidding/auction i.e. the lowest bid wins, is to be followed as per the guidelines of the Government of India. However, it was observed that there was a stalemate at INR 0 per tonne during the reverse auction. This means that the entity bidding for such block would theoretically get the block at a price of INR 0, which would result in a greatly reduced power tariff for end users, as the tariff is greatly regulated by the CERC. To break this stalemate, forward bidding/auction methodology is adapted to ensure fair disposal of the country’s resource.

It is imperative to know that even though a forward bidding/auction process is undertaken, the energy charge that can be passed onto the end user is still at the lowest bid price in the reverse auction i.e. INR 0.

This ensures rationalisation of tariffs all over the country. Also, another great advantage of this is the reduction of power subsidies by avoiding a nominal money trail between the Government, Power companies & the end users.

Essar Power won the coal block by quoting the highest quote at INR 1110/ton. Now Essar Power will have to pay INR (1110+100)/ton to state government for amount of coal it extracts from mine but will charge only INR 100/ton in tariff calculation.

“Essar bags Tokisud North coal block for record Rs 1110/tn “
- Moneycontrol.com-18-Feb-2015
We have taken a hypothetical case to demonstrate effect of reverse bidding turning into forward bidding on energy charge in tariff and P&L.

Case assumes CIL notified coal price at INR 1000/tonne and lowest bidder winning the mine by quoting highest forward bid at INR 800/tonne.

In Reverse then forward auction process, coal charge at INR 300/tonne will be paid to state government (part of P&L) but will not be part of energy charge in tariff calculation as per CERC guidelines. All other coal related charges like cost of mining, reserve price, royalty, cess and transport cost will be part of both P&L and tariff calculation.

In this type of auction method, there would be under recovery as power producer would be not able to pass all coal related cost to consumer.
The government through the bidding process is likely to achieve its twin objectives of revenue maximization and power tariff rationalization.

- The outcome questions the rationale behind the government’s decision not to exploit these mines and allocate it instead to the private sector on the grounds that it is not in a position to undertake the investments needed to extract the coal.
- The failure of government was the reason of the growing import dependence resulting in the outflow of foreign exchange on account of coal import despite the availability of domestic reserves. What emerges now is that coal extraction is an extremely lucrative activity. The government could have stuck to expanding public sector coal production and garnered the resulting profits, without handing it over to the private sector.
- The government through the bidding process is likely to achieve its twin objectives of revenue maximization and power tariff rationalization.
- Aggressive bidding has led to the view that the outcome was partly the result of excessive competition and a degree of irrational exuberance, and also reflective of the inclination of firms to ensure secure supplies of the raw material, even if that resulted in much lower profits.
- The basis for that reasoning is weak, and it seems to be a way of concealing the fact that private sector operators who were allocated captive coal blocks had made huge gains.
- The table below enumerates the total proceeds, which the host state will stand to receive over the life of the mine (E).

<table>
<thead>
<tr>
<th>State</th>
<th>e-Auction Proceeds*</th>
<th>Royalty to State*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odisha</td>
<td>516</td>
<td>92</td>
</tr>
<tr>
<td>M P</td>
<td>26,843</td>
<td>3,779</td>
</tr>
<tr>
<td>West Bengal</td>
<td>11,203</td>
<td>2,008</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>1,602</td>
<td>218</td>
</tr>
<tr>
<td>Jharkhand</td>
<td>6,853</td>
<td>1,171</td>
</tr>
<tr>
<td>Chattisgarh</td>
<td>5,593</td>
<td>489</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>52,611</strong></td>
<td><strong>7,756</strong></td>
</tr>
</tbody>
</table>

*17th February
Source: Ministry of Coal
We have segregated the pool of coal blocks available for bidding in round into key clusters, based on the location of the end-use plants and concentration of coalfields. These clusters are:
- **Cluster A**: Chattisgarh/Odisha adjoining border
- **Cluster B**: Madhya Pradesh, Uttar Pradesh, Jharkhand, and Chattisgarh
- **Cluster C**: Odisha Central
- **Cluster D**: Madhya Pradesh and Maharashtra
- **Cluster E**: Others

The segregation would help gauge the distance advantage available to end-use projects in the vicinity of the blocks, and thus, the economic advantage in bidding for a block. The classification also provides a good sense of likely demand vis-à-vis resource availability for major categories of end-use sectors like Power and Sponge Iron. Table 5.1, shows the existing & developing power plants. Table 5.2 shows the existing mismatch between demand & availability.

<table>
<thead>
<tr>
<th>Power Plants</th>
<th>Schedule II</th>
<th>Schedule III</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster A</td>
<td>8</td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td>Cluster B</td>
<td>3</td>
<td>19</td>
<td>22</td>
</tr>
<tr>
<td>Cluster C</td>
<td>0</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Cluster D</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Cluster E</td>
<td>0</td>
<td>N.A</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>358</strong></td>
<td><strong>115.4</strong></td>
<td><strong>32%</strong></td>
</tr>
</tbody>
</table>

**Particulars**

<table>
<thead>
<tr>
<th>Demand</th>
<th>Availability</th>
<th>Availability as a percent of Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster A</td>
<td>142</td>
<td>40</td>
</tr>
<tr>
<td>Cluster B</td>
<td>50</td>
<td>38</td>
</tr>
<tr>
<td>Cluster C</td>
<td>56</td>
<td>19</td>
</tr>
<tr>
<td>Cluster D</td>
<td>66</td>
<td>15</td>
</tr>
<tr>
<td>Cluster E</td>
<td>44</td>
<td>3.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>358</strong></td>
<td><strong>115.4</strong></td>
</tr>
</tbody>
</table>
Analysis & Comments – Determinants of Auction pricing

Logistics cost, operational difficult key constraints
Logistics distance and cost would play a crucial role in bidding. Transmission of power is more economical and less strenuous than transportation of coal. This may make end-use projects in far-off areas less attractive. Also, there is ample capacity in the region/cluster and cap on coal blocks too may not be a constraining factor. The probability of far-off projects being successful in bidding is low. While cost is one factor, putting up evacuation infrastructure is another key criterion.

Adverse demand-supply coal scenario will lead to aggressive bids
From the power sector mines to be auctioned only ~19mtpa is currently being produced. Further, ~46mtpa is set to get operational over the next 1-3 years and ~54mtpa will commence production 3 years hence. The incremental requirement of at least ~170mtpa of coal for ~60GW of projects indicates an adverse demand-supply situation. This, coupled with an option to bid up to 150% of a power projects’ requirement is expected to result in widespread participation by the developers in the auction. Even on price bids, uncertainty of sourcing cheap domestic coal beyond these auctions and PPA tariffs will see aggressive bidding.

Cap on coal block entitlement – fine print holds the key
Another factor that may have a bearing on the auction process in the longer run is possible cap on the number of blocks that a developer can take. The cap could be driven by the idea of wider participation of developers/end-use projects and group exposure norms by lenders not impacting project progress.

Qualitative and quantitative factors to influence bids
The reverse auction process adopted for the power sector will ensure that the successful bidders will mine the coal efficiently and pass on the benefits. However, developers with weak cash flows and unable to withstand losses over the next couple years will resort to under-cutting to minimize their losses.

Bid at import parity: Mantra of non-power developers
Similar to the aggression shown by the power companies, non-power companies also witnessed stiff competition in the first round of the coal block auctions to secure coal for their existing end-use plants. Most of the blocks got auctioned at prices much higher than expected with few blocks getting auctioned almost at par with the landed cost of imported coal. Key reasons for bids: 1) to hedge themselves from the risks of future rise in international coal prices; 2) secure fuel supply for thirty years at a price lower/at par than the landed price of currently subdued international coal prices; and 3) greater control in operating the end use plant.

Operational lifespan of mine
With aggressive bidding, these companies are freezing their coal supply for thirty years at a price lower than the landed price of currently subdued international coal prices. In addition, with their own mines, companies will have control over costs. Hence, we believe companies are being rational even at such high bids.

Company-specific Strategies
Given that each project/developer profile is unique, the bidding strategies will also depend on how distressed some of the projects are and how comfortable are the sponsor companies placed to sustain losses over a period of time if need be. The bidders would consider the financial condition of competitors in the fray and their respective project dynamics before strategizing on their own bids.
**Analysis & Comments – Auction Results**

Given below is the result of the coal block auction of the Schedule II mines:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Coal Mine</th>
<th>Successful Bidder</th>
<th>Cluster</th>
<th>Bid Amount</th>
<th>Previous Allottees</th>
<th>PRC</th>
<th>Reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Amelia North</td>
<td>Jaiprakash Power</td>
<td>B</td>
<td>INR 712</td>
<td>MPSMC</td>
<td>2.8</td>
<td>120</td>
</tr>
<tr>
<td>2</td>
<td>Sarisatolli</td>
<td>CESC Limited</td>
<td>A</td>
<td>INR 470</td>
<td>CESC</td>
<td>3.5</td>
<td>140</td>
</tr>
<tr>
<td>3</td>
<td>Talabira-I</td>
<td>GMR</td>
<td>A</td>
<td>INR 478</td>
<td>Hindalco Industries</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>4</td>
<td>Tokisud North</td>
<td>Essar Power</td>
<td>B</td>
<td>INR 1110</td>
<td>GVK Power</td>
<td>2</td>
<td>93</td>
</tr>
<tr>
<td>5</td>
<td>Trans Damodar</td>
<td>The Durgapur Projects</td>
<td>A</td>
<td>INR 940</td>
<td>WB Mineral Development</td>
<td>1</td>
<td>62</td>
</tr>
<tr>
<td>6</td>
<td>Gare Palma IV/ 2 &amp; 3*</td>
<td>Jindal Power</td>
<td>A</td>
<td>INR 108</td>
<td>Jindal Steel &amp; Power</td>
<td>6.3</td>
<td>286</td>
</tr>
</tbody>
</table>

*Jindal Power’s successful bid for Gare Palma IV/ 2 & 3 has been suspended by the Government on account of distorted bidding & a low final bid price.
The financial year 2014-15 has been a year of immense significance for the domestic coal sector. The Government’s immediate focus seems to be the power sector, which is reflected by the increase in the share of blocks allocated to the sector in the first round, as compared to its original allocation. Additionally, the reverse auction process will put a cap on power tariff, which is a move that would benefit power-intensive industries. However, the “non-regulated” sectors have been given lower allocation in coal reserves to be auctioned in the first round, which will increase their dependence on costlier outside coal. Moreover, with iron & steel, cement and captive power units being clubbed under one group, the level of competition among these companies in the upcoming auctions is expected to be high. Going forward, even if allocations to these “non-regulated” sectors are increased from the current level in subsequent auctions, since the progress made by the remaining mines is lower than the mines being auctioned in the first round, “non-regulated” sectors will continue to be at a disadvantage in the medium term.

The impact on the winner’s profitability, again, depends on a number of factors. For instance, power plants which are located next to the coal blocks will be better off since they will save on transportation costs. Plants which have already recovered their investments or have low debt are better off. Once all the auctions are complete, a better picture should emerge. Firms will also be questioned by investors on the logic of their bids. Their answers will be judged and, as time passes, their wisdom, or the lack of it, will become evident. A happy outcome will be if coal prices rise sharply from their current levels and if demand for power zooms as the economy grows.

“20 coal blocks out of 204 have been auctioned so far and we received more than Rs 2 lakh crore from them.”
- Narendra Modi, PM, India
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