VALUATION OF DERATED THERMAL POWER PLANT FOR IMPAIRMENT OF ASSETS UNDER INDIAN ACCOUNTING STANDARD – 28 (AS 28)

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By

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IMPAIRMENT OF ASSETS OF DERATED THERMAL POWER PLANT

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- **Location of Plant**
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LOCATION OF THE THERMAL POWER PLANT UNDER VALUATION

280 MW Thermal Power Plant (TPP), derated to 220 MW capacity, is located at XXXX in the District of YYYY of the State of ZZZZ.

DATES OF COMMISSIONING

Unit No.	Installed Capacity (MW)	Derated Capacity (MW) (*)	Date of Commissioning	Date of Derating
1	140	110	1972-73	April 20, 2007
2	140	110	1972-73	April 20, 2007
TOTAL	280	220		

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TECNICAL DETAILS

SPECIFICATIONS

Sr. No.	Particulars	Units	Design
(A)	BOILER:-		
1.	Drum Pressure (design)/ OPERATING	Kg./cm^2.	151.2/142.3
2.	Super heater outlet pressure	Kg./cm^2	133.6
3.	Super heater steam flow.	Mts/hr.	459.0
4.	Heat rate	KCAL/KWH	2126
(B)	TURBINE :-		
T.	Rating of turbine	MW	140
2.	Turbine inlet steam pressure	°c	537.7
3.	Turbine exhaust pressure	Hg.absolute	3.5'
4.	Normal working speed	RPM	3000
5.	Steam rate.	kg/KWH	3.24
6.	Over all Heat Rate.	KCAL/KWH	2428

TECNICAL DETAILS

SPECIFICATIONS

Sr. No.	Particulars	Units	Design
(C)	GERNERATOR:-		
1.	Capacity	MW	140
2.	Terminal Voltage	kV	15
3.	Power Factor		0.85
4.	Synchronous Speed	RPM	3000
(B)	EFFICIENCY :-		
T.	Boiler Efficiency	%	87.96
2.	Turbine Efficiency	%	40.40
3.	Overall Efficiency	%	35.40
4.	Turbine Heat Rate	kCal / kWH	2126
5.	Overall Heat Rate	kCal / kWH	2428

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PERFORMANCE OF THE THERMAL POWER PLANT

Study of major performance parameters is must

Past and present performance level of the existing TPP which is under valuation is to be considered while

Optimizing Depreciated Replacement Cost, and

And

Deriving Value in Use

PERFORMANCE OF THE THERMAL POWER PLANT (Contd.)

ACTUAL GENERATION (MWH)

Year	Unit		TOTAL/ AV
	1	2	TPS
2006-07	502670	547772	1050442
2005-06	404524	429069	833593
2004-05	656359	522509	1178868
2003-04	393508	337566	731074
2002-03	490998	319150	810148
AVERAGE	489612	431213	920825

PERFORMANCE OF THE THERMAL POWER PLANT (Contd.)

PLANT AVAILABILITY FACTOR (%)

Defined in relation to any period, the RATIO, expressed as a percentage, of

Total number of hours in the relevant period less hours the generator was not generating for any reasons like shutdown, breakdown, maintenance, etc.
To
Total number of hours in the relevant period

Year	Unit		TOTAL/ AV
	1	2	TPS
2006-07	86.30	71.92	79.11
2005-06	68.99	83.16	76.07
2004-05	87.58	79.04	83.31
2003-04	63.77	65.69	64.73
2002-03	65.02	58.97	72.00
AVERAGE	78.33	71.76	75.05

PERFORMANCE OF THE THERMAL POWER PLANT (Contd.)

PLANT LOAD FACTOR (%)

Defined in relation to any period, the RATIO, expressed as a percentage, of

Total kWh generated at generator terminal
To
Installed capacity in kW multiplied by number of hours

Year	Unit		TOTAL/ AV
	1	2	TPS
2006-07	40.99	44.67	42.83
2005-06	32.98	34.99	33.99
2004-05	58.49	46.56	52.52
2003-04	32.09	27.52	29.72
2002-03	40.04	26.02	33.03
AVERAGE	40.92	35.95	38.42

PERFORMANCE OF THE THERMAL POWER PLANT (Contd.)

NET HEAT RATE (kWH/ kCal)

Net Heat Rate: is defined as heat energy, in kCal, to generating station to deliver one kWh at the switchyard

Gross Heat Rate: is defined as heat energy, in kCal, to generating station to deliver one kWh at the generator terminals

Year	Unit		TOTAL/ AV
	1	2	TPS
2006-07	2919	2958	2940
2005-06	3040	3033	3037
2004-05	2957	2950	2954
2003-04	3172	3204	3187
2002-03	3036	3038	3037
AVERAGE	3025	3037	3031

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VALUATION APPROACH

- **INDIAN ACCOUNTING STANDARD – 28 (AS 28)**

- **RECOVERABLE AMOUNT**

  “ Higher of Net Selling Price or Value in Use”

- **NET SELLING PRICE**

  “Sale Proceeds of Assets at an arm’s length transaction between knowledgeable and willing parties less cost of disposal (except finance and income tax expenses)”.

- **VALUE IN USE**

  “Value of estimated discounted future cash-flow expected to arise from continuous use of an asset being under examination of impairment, during the reasonable period out of its useful life plus its discounted value of disposal proceeds at the end of useful life”

VALUATION APPROACH

- **SPECIALISED PROPERTY**

- **REALISABLE VALUE**

  in lieu of Net Selling Price, the Optimized Depreciated Replacement Cost (ODRC)

- **CARRYING VALUE**

  “the amount at which an asset is recognized in the balance sheet after deducting any accumulated depreciation (amortization) and accumulated impairment losses thereon”

- **IMPAIRMETN LOSS**

  “Carrying Value in excess of Recoverable Amount”

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PRESENT DAY REPLACEMENT COST (PDRC / RC)

- Studying & Compiling detailed fixed Asset Register
- Valuing the assets at Present Day Replacement Cost (PDRC) of new similar kind and capacity fixed assets.

At the power plant, a comprehensive Fixed Asset Register is maintained as per the Electricity (Supply) Annual Accounts Rules 1985. Each kind of asset is falling in one of the other account head/ code.

Sr. No.	Account Codes	Name of Assets
A	10.1	Land & Land Development
B	10.2	Buildings
C	10.3	Hydraulic Works
D	10.4	Other Civil Works
E	10.5	Plant & Machinery
F	10.6	Lines & Cable Net-Work
G	10.7	Vehicles
H	10.8	Furniture, Fixtures & Electrical Installation
I	10.9	Office Equipments

PRESENT DAY REPLACEMENT COST (PDRC / RC)

- **Thorough check for consistency**
- **Sample checks to verify accuracy of the quantities and ages of assets recorded**
- **Scrutiny for sorting and reporting certain assets like head office's buildings, office furniture and equipment, motor vehicles and capital work in progress**

The scrutinized fixed assets valued using the Present Day Replacement Cost (PDRC) of ***similar kind and capacity new at the same place in order to provide the same level of service.***

Adjustments made for improvements resulted into higher replacement cost.

PRESENT DAY REPLACEMENT COST (PDRC / RC)

- **LAND**

  The land was valued at **current market value**, keeping in view the economic developments, registered land sale transactions in recent past of 5 years. Further due consideration is given to the restrictions of easy disposal and/ or to put the land is alternative use.

- **BUILDINGS OTHER THAN PLANT BUILDINGS**

  The other buildings like office buildings, residential colonies, guest houses, schools, hospitals and other amenities were valued on plinth area basis applying **current costs of constructions**. The **plant buildings** are considered specialized buildings and the valued **similarly to plant and machinery**.

- **MISCELLANEOUS ASSETS**

  These miscellaneous, like Vehicles, Furniture, Fixtures, Fittings and Office Equipments were value at their **current cost of replacement** on obtaining information from the market.

PRESENT DAY REPLACEMENT COST (PDRC / RC)

PLANT AND MACHINERY AND EQUIPMENTS

The plant and machinery including plant buildings were considered SPECILISED ASSETS, in view of following characteristics:

- ✓ **Owned by State Government.**
- ✓ **Used for monopoly business of generation of electricity.**
- ✓ **Not sellable in the open market, except as part of the entity, which was not possible in near future.**
- ✓ **The revenue generated is state regulated which can not be derived from open market and for which no open market evidences exist, except comparing with other state(s) owned similar power plants.**

While determining MODERN EQUIVALENT ASSETS (MEA) there were certain indicators used:

- ❖ **Number of short downs.**
- ❖ **Major accidents occurred resulting into downtime.**
- ❖ **Proven reliability of power plant based on designed parameters**
- ❖ **Operational Compliance with the norms fixed by Statutory Bodies, like Ministry of Power, Central Electricity Authority, Electricity Regulatory Commissions, etc.**
- ❖ **Least lifetime costs.**

PRESENT DAY REPLACEMENT COST (PDRC / RC)

- **The Reserve Bank of India (RBI) publishes Whole Sale Price Indices of various classes of assets. The same were applied wherever no current prices or cost estimated were available.**

- **To crosscheck the accuracy of indexing, to the extent possible, cost estimates were obtained from manufacturers or suppliers or cost of construction of similar plants in recent past. Wherever necessary/ appropriate adjustments were made.**

DEPRECIATED REPLACEMENT COST (DRC)

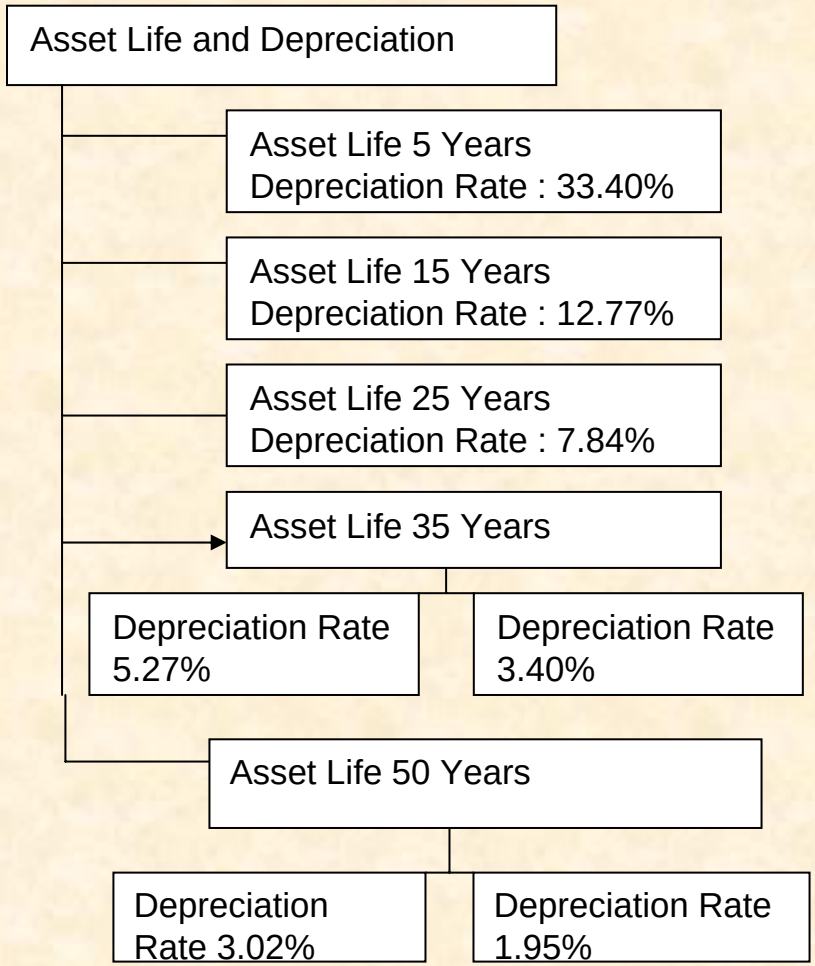
DEPRECIATION & LIFE OF THE ASSETS

The depreciation rates of state owned monopoly electrical business are governed by **The Electricity (Supply) Act 1948.**

Prior to 1992, assets could be classified into 12 groups based on the fair life and 19 based on the depreciation rates. From 1992 it reduced the number of groups to 7 on both aspects of fair life and depreciation rates. This was done by reducing the fair life and increasing the depreciation rates. Further, in 1994, the fair life of assets remained unchanged while the depreciation rates increased.

All the **assets** could be **classified** into the categories **based on their depreciation rate and their useful life.**

DEPRECIATED REPLACEMENT COST (DRC)



DEPRECIATED REPLACEMENT COST (DRC)

Useful Life for Depreciation of Assets

Asset	India	U.K.	N.Z.	Canada	Australia
Civil Works	25 - 50	40	50 - 100	75 - 100	30 - 100
Generating Assets	15 - 35	20 - 60		35 - 40	20 - 70
Towers	25 - 35	40		45 - 80	
Substation Plant	25 - 35	40			
Overhead Lines & Cables	25 - 50	40 - 50		30	23
Control Equipments	15 - 25	15 - 25	16 - 70	20	5 - 20
Telecommuni-cation Equip.	15	3 - 25	3 - 10	20	6
Motor Vehicles & Office Equip.	5 - 15	3 - 5		7 - 17	6

DEPRECIATED REPLACEMENT COST (DRC)

DEPRECIATION RATES ADOPTED

We adopted following Depreciation Rates for major class of assets as under:

$$\text{Depreciation Rate} = \frac{\text{Asset Value -- Residual Value (10\%)}}{\text{Economic Life}}$$

Asset	Rate (%)
Main Plant	
Steam electric NHRS & Waste heat recovery boilers	2.57
Diesel electric & gas plant	6.00
Cooling Towers and Circulating water systems	3.60
Building & Civil engineering works of a permanent character not mentioned above	
Offices and showrooms	1.80
Containing thermo-electric generating plant	2.57
Temporary erections such as wooden structures	18.00
Roads other than temporary roads	1.80
Others	1.80

DEPRECIATED REPLACEMENT COST (DRC)

DEPRECIATION RATES ADOPTED

Asset	Rate (%)
Transformers, kiosk, sub-station equipment & other fixed apparatus (incl. foundation)	
Transformers including foundations having rating of 100 KVA and over	3.60
Others	3.60
Switch Gear including cable connections	3.60
Lighting Arrestors	
Station Type	3.60
Pole Type	6.00
Synchronous Condenser	2.57
Batteries	18.00
Underground cable including joint boxes	2.57
Overhead Lines including cable support systems	
Lines on fabricated steel operating at terminal voltages higher than 66 KV	2.57
Lines on steel supports operating at terminal voltages higher than 13.2 KV but not exceeding 66 KV	3.60

DEPRECIATED REPLACEMENT COST (DRC)

DEPRECIATION RATES ADOPTED

Asset	Rate (%)
Lines on steel or reinforce concrete support	3.60
Lines on treated wood support	3.60
Meters	6.00
Self Propelled Vehicles	18.00
Air – Conditioning Plants	
Static	3.60
Portable	6.00
Office Furniture & Finishing	6.00
Office equipment	6.00
Internal wiring including heating and apparatus	6.00
Steel like fitting	6.00
Communication Equipment	
Radio and high frequency system	6.00
Telephone lines and telephones	6.00

OPTIMISED DEPRECIATED REPLACEMENT COST (ODRC)

For SPECIALISED ASSETS, particularly power plants, following possible degrees of optimisation considered :

1. ***Reproduction of Existing Assets***

   Since the Replacement Cost is worked out on the basis of Present Day Replacement/ Reproduction Cost (PDRC) of similar kind and capacity new plant, no optimization required.

2. ***Elimination of Surplus Assets***

   Since the power plant is valued in situ, and no major assets found to be surplus, no optimization required.

3. ***Over Design***

   No optimization required.

OPTIMISED DEPRECIATED REPLACEMENT COST (ODRC)

4. Obsolescence Eliminated

Obsolescence may arise from factors such as *outdated design and/ or functionality* of an asset or changed code requirement. This element of optimisation was checked comparing the performance parameters of existing plant with those operating norms or benchmarks sets by the Regulatory bodies, like Ministry of Power, Central Electricity Authorities, Central/ State Electricity Regulatory Commissions, etc. Since being specialized assets and being State owned monopoly business this was the appropriate base of optimisation. Comparison was also confirming the long-term commercial viabilities of the plant.

The actual average performance of 5 years of the subject TPP was compared with the set operating norms as under:

OPTIMISED DEPRECIATED REPLACEMENT COST (ODRC)

Sr. No.	Operating Parameter	Unit of measure	Norms set	Actual Average of recent past 5 years
1.	Plant Load Factor (a)Daily (b)Annual	%	> 50 > 75	38.42
2.	Net Heat Rate Coal at 80% PLF and steam pressure @ 170 kg/ cm^2	KCal per kWh	2460 – 2500 Avg. 2480	3031
3.	Auxiliary Fuel Consumption for coal/ lignite as fuel	%	9.00	10.56

OPTIMISED DEPRECIATED REPLACEMENT COST (ODRC)

The above analysis showed that the only parameter attracted optimization of lower side was excessive heat rate, which was higher by about 22.22% compared to that set optimum operating norms.

In other words, the plant is less energy efficient and hence it is likely to generate less output, ultimately less revenue, during its remaining useful life in comparison to similar modern equivalent plants or expected by the regulations.

Further reviewing the practical situation of the coal supply to the State that comes from far eastern states traveling long distances, this type of lower heat rate is expected even for modern equivalent plant. The quality of coal supplied is mixed one that is also one of the factors of less energy efficiency.

OPTIMISED DEPRECIATED REPLACEMENT COST (ODRC)

For the subject TPP the cost of fuel (oil) for generation of electricity is worked out to be Rs. 2.31 per kWh. This means the cost of generation by existing plant is more by Rs. 0.5133 per kWh at optimum operating norms for existing level of generation.

This being revenue expenditure for remaining life of plant, there is no implication on valuation of Plant & Machineries valued under regulated power tariff mechanism for the assets of public sector power plant for given purpose.

However this parameter should not be neglected for valuation of ongoing business under deregulated power tariff mechanism and for any other purpose of valuation like sale of or disinvestments from business entity.

VALUE IN USE

To arrive the “Value in Use” of derated 2x110 MW TPP, as the sole product is power generation the same is considered as single Cash Generating Unit (CGU). With certain market driven explicit assumptions, the future cash flows projections were worked out and the Present Value of the cash flow was arrived using Discounted Cash Flow (DCF) method.

VALUE IN USE
Major Assumptions

- The de-rated to 2X110 MW capacity was expected to keep on generating with availability of fuel. Hence its maximum generating capacity would be 1927 Million Units (MUs) at 100% PLF.
- The remaining life of the plant assessed and considered 10 years.
- The annual sale of electricity was 1117 MUs in 2006-07 considering 60% PLF and after 12% of auxiliary consumption. In subsequent years of projection it is expected to run/ perform at the same heat rate. However considering the age of the plant it was expected to reduce at 0.5% p.a.

VALUE IN USE
Major Assumptions

- Sales price of generated electricity was realized @ Rs. 3.1479 per unit and @ Rs. 4.60 per unit in 2005-06 and 2006-07 respectively, of course tariff regulated. For future projections, the base price taken was @ Rs. 3.25 per unit with annual increase @10% considering average tariff realized from all the power plants of the state.

- Considering the international price fluctuations in oil prices and the same compensated by strong rupee value against US $, the inflation in fuel oil price is considered @ 2.5% p.a.

- Repair and Maintenance Cost was expected to follow the trend of increase @ 2.5% p.a. considering base as 2006-07.

- Employee Cost was expected to increase @ 7.5% p.a.

VALUE IN USE
Major Assumptions

- **Administrative Cost was expected to increase @ 2.5% p.a.**
- **Financing cost was not incurred much in previous two years, but for fuel inventory of 30 days, interest cost @ 10% p.a. was considered.**
- **Depreciation during projected period was provided by amortization over remaining life, irrespective of any depreciation rates provided by any authority or law or commission. This was required to reasonably put the said TPP comparable to competitive TPPs.**
- **Future projected cash flow was to be discounted to present value considering necessary inflation and risk factor. Discounting rate is taken as 10%.**

"VALUE IN USE"
OF DERATED 2X110 MW TPP; CASH GENERATING UNIT (CGU)

Sr	Description	Init	2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12	2012 - 13	2013 - 14	2014 - 15	2015 - 16	2016 - 17
No.			Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected
A.	REVENUE											
1	Generating Capacity	MU	1927.20	1927.20	1927.20	1927.20	1927.20	1927.20	1927.20	1927.20	1927.20	1927.20
2	Plant Load Factor	%	60.00	59.00	58.00	57.00	56.00	55.00	54.00	53.00	52.00	51.00
3	Units Generated	MU	1,156.32	1,137.05	1,117.78	1,098.50	1,079.23	1,059.96	1,040.69	1,021.42	1,002.14	982.87
4	Units Sole/ Billed	MU	1,017.56	1,000.60	980.29	963.39	942.17	925.35	905.40	878.42	851.82	825.61
5	Sales Rate / Unit	Rs.	3.25	3.58	3.93	4.33	4.76	5.23	5.76	6.33	6.97	7.66
6	Sales Value	Rs. Million	3,307.08	3,577.15	3,854.99	4,167.38	4,483.15	4,843.40	5,212.90	5,563.31	5,934.36	6,326.94
7	Other Income	Rs. Million	4.96	5.37	5.78	6.25	6.72	7.27	7.82	8.34	8.90	9.49
8	Total Cash Inflow	Rs. Million	3,312.04	3,582.52	3,860.77	4,173.63	4,489.87	4,850.67	5,220.72	5,571.66	5,943.26	6,336.43
B.	EXPENSES											
1	Fuel Consumpton	Rs. Million	2,430.70	2,700.75	2,987.62	3,308.90	3,649.28	4,039.40	4,430.96	4,728.81	5,044.21	5,377.90
2	Repairs	Rs. Million	49.61	55.45	61.68	68.76	78.46	89.60	99.05	108.48	121.65	136.03
3	Employees Cost	Rs. Million	193.25	207.74	223.32	240.07	258.07	277.43	298.24	320.60	344.65	370.50
4	Administrative Expenses	Rs. Million	17.84	18.28	18.74	19.21	19.69	20.18	20.69	21.20	21.73	22.28
5	Finance Cost	Rs. Million	13.90	15.44	17.08	18.92	20.87	23.10	25.34	27.04	28.84	30.75
6	Total Cash Outflow	Rs. Million	2,705.29	2,997.66	3,308.44	3,655.86	4,026.37	4,449.71	4,874.27	5,206.14	5,561.09	5,937.45
C.	Profit before Depreciation	Rs. Million	606.75	584.86	552.33	517.77	463.51	400.96	346.45	365.51	382.18	398.98
D.	Depreciation	Rs. Million	48.30	48.30	48.30	48.30	48.30	48.30	48.30	48.30	48.30	48.30
E.	Scrap/ Salvage Estimated	Rs. Million										500.00
E.	NET CASH FLOW	Rs. Million	558.45	536.56	504.03	469.47	415.21	352.66	298.15	317.21	333.88	350.68
F.	PRESENT VALUE OF NET CASH FLOW DISCOUNTED AT 10%	Rs. Million	**3165.17**									

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VALUES CERTIFIED -- REALISABLE VALUE

(Rupees million)

Sr.	A/C	Description	OC	CA	RC	**RV**	IL
A.	10.1	LAND & RIGHTS	1.47	1.47	221.41	221.41	0.00
B	10.4	PLANTATION	11.14	11.14	13.14	13.14	0.00
C	10.2	BUILDINGS	56.45	16.79	409.34	163.94	0.13
D	10.3	HYDRAULIC WORKS	295.43	100.22	1292.62	428.90	0.00
E	10.4	OTHER CIVIL WORKS	35.33	5.52	64.14	24.94	0.00
F	10.5	PLANT & MACHINERY	1096.74	365.99	4174.28	1502.64	0.33
G	10.6	LINES AND CABLE NET-WORK	3.56	1.15	15.07	4.32	0.00
H	10.7	VEHICLES	5.59	2.32	13.07	3.84	0.31
I	10.8	FURNITURE, FIXURES & FITTINGS	2.33	0.79	3.76	1.69	0.00
J	10.9	OFFICE EQUIP.	5.34	1.06	3.93	2.57	0.13
TOTAL			1513.38	506.45	6210.76	**2367.39**	0.90

OC = Original (Historical) Cost
CA = Carrying Amount
RC = Replacement Cost
RV = Realizable Value
IL = Impairment Loss

VALUATION CERTIFIED

VALUES CERTIFIED – VALUE IN USE

The Value In Use certified to be **Rs. 3165.17 million.**

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VALUES CERTIFIED – OPINION ON IMPAIRMENT

RECOVERABLE AMOUNT:

The Recoverable Amount is higher of Realizable Value and Value in Use. Thus for the CGU as a whole, the Recoverable Amount is **Rs. 3165.17 million.**

OPINION ON IMPAIRMENT:

Since the Recoverable Amount, is higher than Carrying Amount, there is no Impairment Loss. Reviewing individual asset items, there exists nominal loss, but considering CGU as whole, these minor items of loss may be ignored.

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VALUATION CONSTRAINTS

- **Practically, it is extremely specialized job to determine the exact replacement cost of the specialized assets. This is so on account of number of reasons, such as :**

  (1) Changes in technology over a period of time (resulting in certain assets not being produced at all or being produced with far more efficiencies than earlier).

  (2) Absence of a marketplace where such assets are or can be traded.

  (3) Inabilities of the seller to be able to actually realize the value of assets in one go should the assets be liquidated.

  (4) Changes in the duty structure (like excise, import duties etc.), which may impact the value of the asset over different periods of time.

  (5) Ignores the operational problems.

  (6) Non- consideration of updated plant / machineries for replacement cost due to large price variation.

VALUATION CONSTRAINTS

- **The initial cost components capitalized are mostly either overstated or understated in the fixed asset register, which needs appropriate adjustments, due to reasons like :**

  (a) The initial supplies by the contractors and manufactures are quoted higher having known that most of the public sector / government projects are delayed.

  (b) The cost of capital, i.e. interest, during construction period capitalized on higher side due to delayed construction activities.

  (c) Being government projects, certain imports as well as domestic supplies are duty/ tax-free.

  (d) Certain preliminary expenses and preoperative expenses need careful scrutiny.

  (f) Some major repairing expenses capitalized in books of accounts instead of revenue expenditure.

VALUATION CONSTRAINTS

- **Depreciation**
  The depreciation rates decided by regulatory authorities on cost recovery parameters keeping in view administered pricing of services to the society. This does not commensurate on the basis of actual life of the assets.

- **Asset remaining life**
  Deciding this parameter calls for expert technical assessment and best judgment based on the remaining serviceability of the assets, which should not be overlooked.

- **In depth study of technical parameters of the existing system configuration and compare the same with latest developments is must.**

- **In depth analysis of performance of the plant and compare the same with the operating norms set by the regulatory bodies. Ignoring operating characteristics in the valuation of assets would certainly lead to overvaluation.**

VALUATION CONSTRAINTS

- Relying on indices in all categories of assets should not reflect true value since the indices set by the Authorities (RBI) may not cover all the items together in an integrated systems.
- Other methods such as “Net Selling price” and “value in use (economic value)” cannot be employed.
- “Value in use” is based on explicit assumptions and depending on number of variable parameters.

VALUATION OF THERMAL POWER PLANT

THANK YOU

PRESENTED BY

R. K. PATEL

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