

## SALIENT FEATURES (ROSRA)

<b>Sl. No</b>		
<b>1</b>	<b>State</b>	Madhya Pradesh
<b>2</b>	<b>District</b>	Mandla
<b>3</b>	<b>Latitude</b>	22° 58' 18" N
<b>4</b>	<b>Longitude</b>	80° 34' 43" E
<b>5</b>	<b>River</b>	Narmada
<b>7</b>	<b>Catchment area upto dam site</b>	4337 Sq. km
<b>8</b>	<b>Total Land to be acquired</b>	2674 ha
<b>9</b>	<b>Maximum annual rainfall (1926)</b>	2212 mm
<b>10</b>	<b>Minimum annual rainfall (1966)</b>	682 mm
<b>11</b>	<b>Average annual rainfall</b>	1460 mm
<b>12</b>	<b>Design flood (SPF)</b>	29670 Cumecs
<b>13</b>	<b>Probable Maximum Flood</b>	35177 cumec
<b>14</b>	<b>Available runoff at ROSARA</b>	
	i) At 50% dependability	2300.6 MCM
	ii) At 75% dependability	1372.1 MCM
	iii) At 90% dependability	1077.9 MCM
<b>15</b>	<b>Reservoir data</b>	
	i) Average River Bed Level	492.0 m
	ii) Maximum water level	546.30 m
	iii) Full reservoir level	545.00 m
	iv) Silt Elevation	498.47 m
	v) Minimum Draw Down Level (MDDL)	531.00 m
	vi) Water spread at FRL (Submergence)	2653 ha
	vii) Gross storage at FRL	460.92 MCM
	viii) Dead storage (MDDL)	176.78 MCM
	ix) Live storage	284.14 MCM
	x) Maximum tail water level	505.10
	xi) Average tail water level	495.45

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xii)	Minimum tail water level	494.30
xiii)	Flood Level	511.00 m
<b>16</b>	<b>DAM</b>	
<b>(A)</b>	<b>Overflow Dam</b>	
i)	Top of dam	548.5 m
ii)	Length of spillway	235.5 m
iii)	Crest level	527.0 m
iv)	Foundation drainage gallery level	491 m
v)	Maximum height from deepest bed level	61.50 m
vi)	No. & size of crest gates	12 gates of size 15.5 m x 18 m
vii )	Type of Energy Dissipater	Trajectory Bucket
viii)	Width of road on top of dam including parapets	7.5 m
<b>(B)</b>	<b>NON OVERFLOW DAM</b>	
i)	Top of dam	548.5 m
ii)	Length of non-overflow (concrete) dam	LHS 70.00 m RHS 30.00 m
iii)	Length of non-overflow (CFRD) dam	LHS 175.20 m RHS 296.00 m
iv)	Maximum height above foundation level	60.5 m
<b>( C)</b>	<b>POWER DAM</b>	
i)	Top of dam	EL 548.5
ii)	Length of power dam	40 m
iii)	Maximum height above foundation	61.5 m
iv)	No. & diameter of penstocks	2 No.& 3.00 m dia.
v)	Length of penstock	77.5 m
vi)	Center line level of penstocks at bell mouth intake	524.19 m
vii)	Design discharge	83.21 Cumecs (41.605 cumecs each)
<b>(D)</b>	<b>POWER GENERATION</b>	

<b>Sl. No</b>		
i)	Type of Power House	Surface type
ii)	Size of Power House	49.80 m x 17.00 m
iii)	Foundation level of Power House	EL 483 m
iv)	No. & size of units to be installed	2 units of 10 MW
v)	Type of turbine	Francis
vi)	Installed capacity	20 MW
vii)	Gross head	50.7 m
viii)	Net design head	41.84 m
ix)	Size of draft tube gate	3.25 m x 4.10 m
x)	Size of Tail pool	23.70 m x 38.45 m
xi)	Length of TRC	120 m
xii)	Size of switch yard	75 m x 100 m
(E)	Total Length of Composite Dam	846.7 m
<b>17</b>	<b>ESTIMATE OF COST</b>	
<b>a</b>	<b>Unit I (Head Works)</b>	
i)	Direct Charges	410.30 crore
ii)	Indirect Charges	5.98 crore
<b>b</b>	<b>Unit II Hydroelectric Installation</b>	
1)	Civil Works	22.17 crore
ii)	Electro mechanical equipments	49.64 crore
iii)	Transmission line	9.0 crore
	Total Cost	<b>497.10 crores</b>
<b>18</b>	Cost per MW of installed capacity (without IDC) chargeable towards hydroelectric installation	5.75 crore per MW
<b>19</b>	<b>Levellised Tariff (Rs./unit)</b>	Rs. 1.98/ KWh
<b>20</b>	<b>Design Annual Energy Generation (MU)</b>	79 GWh