

## Reference list Hydro Sets

SN.	PROJECT	V/H	TYPE	RATING MW	CUSTOMER	DIA MM	RATED HEAD M	SYN-SPEED RPM	MIV DIA	PIV DIA	YOC
1.	SRINAGAR	V	F	6X55	UPSEB	3450	66	166.7		--	
2.	LOWER JHELUM	V	F	3X35	JKSEB	2800	61	214.3	BVC-3400		1977
3.	KHARA	V	F	3X24	UPSEB	2950	42.6	187.5			1990
4.	BARGI	V	F	2X46.20	MPEB	3600	48.1	166.7			1988
5.	BHIRA TAIL RACE	V	F	2X45	MSEB	3600	48.54	166.7	BVC-4500		1987
6.	MAHI BAJAJ SAGAR	V	F	2X45	RSEB	2550	80	250			1989
7.	VYASI	V	F	2X60	UPSEB	2550	100	272.7	BFL-3000		
8.	NAGARJUNASAGAR	V	F	1X110	APSEB	3600	95	187.5			1977
9.	SALAL ST-1	V	F	3X115	NHPC	3600	94.5	187.5			1987
10.	SALAL ST-II	V	F	3X115	NHPC	3600	94.5	187.5			1992
11.	SRISAILAM	V	F	7X110	APSEB	3600	91.44	187.5	BVF-4200		1982
12.	IDAMALAYAR	V	F	2X37.50	KSEB	2160	109	333.3	BFC-2400	BF -2900	1986
13.	GIRI-BATA	V	F	2X30	HPSEB	1800	147.5	428.6	SVD-1800	BVC-2500	1978
14.	UMIAM-UMTRU	V	F	2X30	MeSEB	1800	140	428.6	SVD-1800		1992
15.	UMIUM ST-III	V	F	2X30	MeSEB	1800	150	428.6	SVD-1800	BFD-2600	1978
16.	UTTARKASHI	V	F	3X30	UPSEB	1800	147.5	428.6	SVD-1800		1984
17.	SUBERNREKHA	V	F	2X65	BSHPC	2800	133	300	BVF-2600		1977
18.	UPPER SINDH ST-3	V	F	2X35	JKSEB	1500	223.86	600	SV -1500		
19.	LOWER SILERU	V	F	2X115	APSEB	2850	193.7	300	SVD-2600		1977
20.	PORINGALKUTTU	V	F	1X16	KSEB	1200	165.3	600	SVD-1300	BVL-1750	1998
21.	LAKHWAR	V	F	3X100	UPSEB	3200	150	214.3	BV -3000		

22.	MANERIBHALI ST-II	V	F	4X76	UPSEB	2120	244	333.3	SVD-2000		
23.	LOKTAK	V	F	3X35	NHPC	2000	298	500	SVD-1300		1983
24.	BAIRASIUL	V	F	3X60	HPSEB	2800	260	375	SVD-1800	BVF2600	1980
25.	VAITARNA	V	F	1X60	MSEB	2800	277.6	375	SVD-1800		1976
26.	CHANDIL	V	K	2X4	BSHPC	2400	14.5	250	BVL-3400		1999
27.	SINGUR	V	K	2X7.50	APSEB	2600	18.29	250			1999
28.	SYL PH-II	V	K	2X7.43	PSEB	3400	13.5	166.7			
29.	SYL PH-I	V	K	2X18	PSEB	4500	15.25	136.4			
30.	KULHAL	V	K	3X10	UPSEB	3200	18	187.5			1975
31.	RAJGHAT	V	K	3X15	MPEB	2900	27.5	250			1999
32.	KURICHU	V	K	3X15	NHPC	2900	32	250	BVL-4000		
33.	MUKERIAN 3 & 4	V	K	6X19.50	PSEB	3650	21.95	166.7			1989
34.	ANANDPUR SAHIB	V	K	4X34.40	PSEB	4000	28	187.5			1984
35.	RISHIKESH HARDWAR	V	K	4X36	UPSEB	4000	32.5	187.5			1980
36.	DONKARAYI	V	K	1X22	APSEB	4300	21	136.4			1983
37.	BHATGAR	V	K	1X16	MSEB	3000	32	214.3	BVC-3600		1977
38.	BALIMELA DAM	V	K	2X30	APSEB	3600	35.85	187.5	BVC-5000		1995
39.	RENGALI EXTN.	V	K	3X50	OHPC	4500	40	166.7			1989
40.	RENGALI ST-I	V	K	2X50	OHPC	4500	40	166.7			1985
41.	SERVALAR	V	K	1X20	TNEB	3100	34.51	214.3			1985
42.	CHENANI	H	P	2X4.60	JKSEB	1200	365.8	600	SVD-600	BVC-1530	1975
43.	LOWER LAGYAP	H	P	2X4	NHPC	1558	530.5	750	SVD-600		1979
44.	SHANAN	V	P	1X50	PSEB	2250	487.7	375	SVD-		1981

									1400		
45.	GANWI	V	P	2X11.25	HPSEB	1300	373.9	600	SVD- 800		
46.	KADANA	V	PT	2X60	GEB	5000	43.5/47.0	142.9			1989
47.	KADANA EXTN.	V	PT	2X60	GEB	5000	43.5/47.0	142.9			1998

### Hydro References

#### Domestic Orders

Power House	Location	Units	mw	rpm	Turbine	Comm. Yr.
OBRA	UTTAR PRADESH	3	33.00	115.40	KAPLAN	1970
BASI	HIMACHAL PRADESH	4	15.00	500.00	PELTON	1970
U.B.D.C. STAGE-I	PUNJAB	3	15.00	150.00	KAPLAN	1971
UKAI	GUJRAT	4	75.00	150.00	KAPLAN	1974
CHIBRO	UTTAR PRADESH	4	60.00	250.00	FRANCIS	1975
KOYNA STAGE-III	MAHARASHTRA	4	80.00	214.30	FRANCIS	1975
RAMGANGA	UTTAR PRADESH	3	66.00	187.50	FRANCIS	1975
SHARAVATHY	KARNATAKA	2	89.10	300.00	PELTON	1976
GUMTI	TRIPURA	4	5.00	333.30	FRANCIS	1976
VAITERNA	MAHARASHTRA	1	60.00	375.00	FRANCIS	1976
DEHAR	HIMACHAL PRADESH	6	165.00	300.00	FRANCIS	1977
NAGARJUN SAGAR	ANDHRA PRADESH	1	110.00	187.50	FRANCIS	1978
PONG	HIMACHAL PRADESH	6	60.00	166.60	FRANCIS	1978
KALINADI	KARNATAKA	6	135.00	375.00	FRANCIS	1979
KOYNA DAM	MAHARASHTRA	2	18.00	250.00	FRANCIS	1980
MUKERIAN (PH- I , II)	PUNJAB	6	15.00	150.00	KAPLAN	1983
KHODRI	UTTAR PRADESH	4	27.90	200.00	FRANCIS	1984
KHANDONG	MEGHALAYA	2	25.00	333.30	FRANCIS	1984
NIDAMPUR (H,T)	PUNJAB	2	0.50	750.00	KAPLAN	1985
SUPA DAM	KARNATAKA	2	50.00	200.00	FRANCIS	1985
MAHI (PH:I)	RAJASTHAN	2	25.00	150.00	FRANCIS	1986
BHANDARDARA-I	MAHARASHTRA	1	10.00	375.00	FRANCIS	1986
PENCH	MADHYA PRADESH	2	80.00	231.00	FRANCIS	1986
TILARI	MAHARASHTRA	1	60.00	500.00	PELTON	1986
STAKNA	JAMMU-KASHMIR	2	2.00	428.60	KAPLAN	1986
KADAMPARA I®	TAMILNADU	4	100.00	500.00	FRANCIS	1987
POCHAMPAD	ANDHRA PRADESH	3	9.00	250.00	KAPLAN	1987
ANDHRA (H)	HIMACHAL PRADESH	3	5.65	500.00	PELTON	1987
VAITERNA DAM-(H,G)	MAHARASHTRA	1	1.50	500.00	KAPLAN	1987
DAUDHAR (H,T)	PUNJAB	3	0.50	750.00	KAPLAN	1987
KOPILI	MEGHALAYA	4	50.00	600.00	FRANCIS	1988
KUNDAH-V	TAMILNADU	1	21.60	750.00	FRANCIS	1988
PAWNA	MAHARASHTRA	1	10.00	250.00	KAPLAN	1988
VARAHI	KARNATAKA	2	115.00	250.00	PELTON	1989
U.B.D.C. STAGE- II	PUNJAB	3	15.00	166.70	KAPLAN	1989
BHABA ( SANJAY )	HIMACHAL PRADESH	3	40.00	500.00	PELTON	1989
KANHER	MAHARASHTRA	1	4.00	375.00	KAPLAN	1991
KARNAH ( H )	JAMMU-KASHMIR	2	1.00	750.00	FRANCIS	1991
KHADAKWASLA	MAHARASHTRA	2	8.00	300.00	FRANCIS	1991
BANSAGAR- I( TONS )	MADHYA PRADESH	3	105.00	250.00	FRANCIS	1991

YAZALI ( H )	AURANACHAL PRADESH	3	1.50	750.00	PELTON	1991
BHATSA	MAHARASHTRA	1	15.00	375.00	FRANCIS	1991
BIRSINGHPUR	MADHYA PRADESH	1	20.00	200.00	FRANCIS	1991
SUTRATGARH ( H , T )	RAJASTHAN	2	2.00	750.00	KAPLAN	1992
TANAKPUR	UTTER PRADESH	3	40.00	136.40	KAPLAN	1992
MANGROL ( H , T )	RAJASTHAN	3	2.00	750.00	KAPLAN	1992
SHIVPUR	KARNATAKA	2	9.00	21.43	KAPLAN	1992
GHATAPRABHA	KARNATAKA	2	16.00	214.30	KAPLAN	1992
KALLADA	KERALA	2	7.50	428.60	KAPLAN	1993
SONE LINK CANAL (B,H)	BIHAR	6	1.69	120.00	SEMI KAP.	1993
GANEKAL ( H , T )	KARNATAKA	1	0.35	600.00	KAPLAN	1994
RAMMAM ( H )	BENGAL	4	12.50	600.00	PELTON	1994
UPPER SILERU	ANDHRA PRADESH	2	60.00	200.00	FRANCIS	1994
HASDEV BANGO	MADHYA PRADESH	3	40.00	187.50	FRANCIS	1994
PENNA AHOBILAM	ANDHARA PRADESH	2	10.00	300.00	KAPLAN	1994
THIROT ( H )	HIMACHAL PRADESH	3	1.50	750.00	PELTON	1995
MANIKDOH	MAHARASHTRA	1	6.00	375.00	KAPLAN	1995
SURYA	MAHARASHTRA	1	6.00	375.00	KAPLAN	1995
DIMBHE	MAHARASHTRA	1	5.00	375.00	KAPLAN	1995
BHANDARDARA	MAHARASHTRA	1	34.00	187.50	FRANCIS	1996
TAWA	MADHYA PRADESH	2	6.75	214.30	KAPLAN	1997
DHOOPDAL ( H , T )	KARNATAKA	2	1.40	750.00	KAPLAN	1997
KADRA	KARNATAKA	3	50.00	142.90	KAPLAN	1997
LOWER PERIYAR	KERALA	3	60.00	333.30	FRANCIS	1997
TEESTA CANAL ( B , H )	BENGAL	9	7.50	142.90	KAPLAN	1997
CHUN CHAN KATTE	KARNATAKA	2	9.00	250.00	KAPLAN	1997
WARNA	MAHARASHTRA	2	8.00	300.00	KAPLAN	1997
BHADRA	KARNATAKA	1	6.00	214.30	KAPLAN	1998
KODASALLI	KARNATAKA	3	40.00	166.70	KAPLAN	1998
DUDHGANGA	MAHARASHTRA	2	12.00	300.00	KAPLAN	2000
KAKKAD	KERALA	2	25.00	428.60	FRANCIS	1999
DOYANG	NAGALAND	3	25.00	250.00	FRANCIS	2000
RANJIT SAGAR	PUNJAB	4	150.00	166.70	FRANCIS	2000
RANGIT	SIKKIM	3	20.00	428.60	FRANCIS	2000
GUMMA	HIMACHAL PRADESH	2	1.50	1500.00	FRANCIS	2000
TEREWANMEDHE (H)	MAHARASHTRA	1	0.20	750.00	TUBULAR	1998

### Export Order

Project	Country	No. of Units	mw	Type	Year of Commg.
PATTANI	THAILAND	3	24	FRANCIS	1981
DEVIGHAT	NEPAL	3	4.80	FRANCIS	1983
TENOMPANGI	MALAYSIA	3	22.00	FRANCIS	1983
CHUKHA	BHUTAN	4	84.00	PELTON	1987
SUNGIAPIAH-UPPER (H)	MALAYSIA	2	7.27	PELTON	1993
SUNGIAPIAH- LOWER	MALAYSIA	2	27.68	PELTON	1998
TALA	BHUTAN	6	170	PELTON	Under Design

KURICHU	BHUTAN	3	15	PELTON	Under Erection
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#### **Project Under Construction**

S.No.	Project	Customer	Rating
1	RANGANADI	NEEPCO	3x135 MW
2	INDIRA SAGAR	NVDA	8x125 MW
3	KOPILI STG II	NEEPCO	1x25 MW
4	BANSAGAR PH III	MPEB	2x20 MW
5	BANSAGAR PH II	MPEB	2x15 MW
6	PYKARA ULTIMATE	TNEB	3x50 MW
7	MALANA	MPCL	2x43 MW
8	SARDAR SAROVAR	SSNNL	2x200 / 220 MW
9	SRISAILAM LBPH	APGENCO	3x150 / 170 MW
10	SRISAILAM LBC	APGENCO	4x18 MW

#### **New Orders**

S.No.	Project	Customer	Rating
1	TALA	THPA BHUTAN	6x170 MW
2	KABINI	SPML	2x10 MW
3	KURICHU	ROYAL GOVT. OF BHUTAN	3x15 MW