

Power Projects in Nepal 2007/08

A. Existing Hydro Projects:

I. Major Hydro projects:

S.N	Hydro projects	Installed Capacity (kW)	S.N	Hydro projects	Installed Capacity (kW)
1	Kali Gandaki "A"	144000	6	Gandaki	15000
2	Marsyangdi	69000	7	Modi Khola	14800
3	Kulekhani No. 1	60000	8	Devighat	14100
4	Kulekhani No. 2	32000	9	Sunkosi	10050
5	Trisuli	24000	10	Puwa Khola	6200
Total					389150

II. Small Hydro Projects:

a. Grid Connected

S.N	Hydro projects	Installed Capacity (kW)	S.N	Hydro projects	Installed Capacity (kW)
1	Chatara	3,200	6	Tinau (Butwal)	1,024
2	Panauti	2,400	7	Sundarikal	640
3	Tatopani (Myagdi) (I + II)	2,000	8	Pharling***	500
4	Seti (Pokhara)	1,500	9	Jomsom **	240
5	Phewa (Pokhara)	1,000	10	Baglung	200
Total					12704

b. Isolated

S.N	Hydro projects	Installed Capacity (kW)	S.N	Hydro projects	Installed Capacity (kW)
1	Heldung (Humla)	500	16	Dolpa	200
2	Kalikot	500	17	Chaurjhari (Rukum) **	150
3	Accham	400	18	Ramechhap	150
4	Jhupra (Surkhet)***	345	19	Aarughat (Gorkha)	150
5	Darchula I and II **	300	20	Taplejung **	125
6	Khandbari**	250	21	Okhaldhunga **	125
7	Bhojpur**	250	22	Terhathum**	100
8	Dhankuta***	240	23	Rupalgad(Dadeldhura)	100
9	Phidim**	240	24	Syangja***	80
10	Doti	200	25	Manang	80
11	Jumla**	200	26	Gorkhe (Ilam)***	64
12	Syarpudaha (Rukum) **	200	27	Helambu	50
13	Bajura	200	28	Chame	45
14	Bajhang**	200	29	Dhading	32
15	Surnaiyagad (Baitadi)	200	Total		5676

III. Private Sector Hydro Projects:

a. Existing (Isolated)

S.N	Hydro projects	Installed Capacity (kW)
1.	Namche (KBC)	600
2.	Salleri (SCECO)	400

b. Independent Power producers (IPPs) connected to INPs:

S.N	Hydro projects	Installed Capacity (kW)	S.N	Hydro projects	Installed Capacity (kW)
1.	Khimtikhola (HPL)	60,000	10.	Thoppal Khola (THP)	1,650
2.	Bhotekoshi (BKPC)	36,000	11.	Chaku Khola (APCo)	1,500
3.	Chilime (CPC)	20,000	12.	PHEME Khola (KHP)	995
4.	Jhimruk (BPC)	12,000	13.	Baramchi (UH)	980
5.	Indrawati III (NHPC)	7,500	14.	Sisne Khola (GBHP)	750
6.	Andhikhola (BPC)	5,100	15.	Rairang (RHPD)	500
7.	Khudi Khola (Khudi HP)	3,450	16.	Salinadi (KSHPS)	232
8.	Piluwa Khola (AVHP)	3,000	17.	Sange Khola (SHP)	183
9.	Sunkoshi Small (SHP)	2,500		Total	156340

B. Hydro Projects in Under Construction:**a. Major Hydro Projects:**

1.	Upper Tamakoshi	309,000	4.	Kulekhani No 3	14,000
2.	Middle Marsyangdi	70,000	5.	Gamgadhi	400
3.	Chamelia	30,000		Total	423400

b. Independent Power producers (IPPs)

1.	Lower Indrawati (SHP)	4,500	4.	Pati Khola (UHP)	996
2.	Mardi Khola (GHP)	3,100	5.	Upper Handi Khola (CPDS)	991
3.	Ridi Khola (RHPD)	2,400	6.	Seti -2 (THP), Kaski	979
	Total				12966

C. Hydro Projects in Preliminary Works in Progress:**a. NEA Joint Venture under Public Private Partnership Program:**

1.	Upper Karnali	300,000
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b. Private Sector Hydro Projects:

S.N	Hydro projects	Installed Capacity (kW)	S.N	Hydro projects	Installed Capacity (kW)
1.	Upper Modi (GITEC)	14,000	9.	Fawa Khola (SHC), Taplejung	2,079
2.	Madi-I (AGPLtd.)	10,000	10.	Lower Chaku Khola (LBPN)	1,765
3.	Mailung Khola (MKPC)	5,000	11.	Siuri Khola (NGPL)	990
4.	Daram Khola (GHP)	5,000	12.	Lower Piluwa Khola (Baneshwor HP)	990
5.	Lower Nyadi (BHP)	4,500	13.	Tinaukhola Small (Namabuddha HP)	990
6.	Upper Mai Khola (ENDE)	3,100	14.	Tadikhola (Adishakti Power)	970
7.	Mai Khola (HDHC), Ilam	2,400	15.	Narayani Shankar Biomass (TMB)	500
8.	Hewa Khola (Barun HPD)	2,400	16.	Belkhu Khola (MFIC), Dhading	320
				Total	55,004

D. Hydro Projects in Planned and Proposed:**a. Major Hydro Projects:**

1.	Budhi Gandaki	600,000	5.	Upper Modi 'A'	42,000
2.	Upper Seti (Storage)	128,000	6.	Upper Trisuli 3 'B'	37,000
3.	Seti Trishuli (Storage)	128,000	7.	Rahughat Khola	30,000
4.	Upper Trisuli 3 'A'	60,000	8.	Total	10,25,000

b. Private Sector Hydro Projects:

S.N	Hydro Projects	Installed Capacity (kW)	S.N	Hydro projects	Installed Capacity (kW)
1.	Seti (West)	750,000	8.	Upper Modi	14,000
2.	Arun-3	402,000	9.	Madi-I (AGPLtd.)	10,000
3.	Upper Marsyangdi "A"	121,000	10.	Daram Khola (GHP)	5,000
4.	Likhu - 4	120,000	11.	Mailung	5,000
5.	Kabeli 'A'	30,000	12.	Lower Indrawati (SHP)	4,500
6.	Khimti II	27,000	13.	Lower Nyadi (BHP)	4,500
7.	Balefi	20,000	14.	Fawa Khola (SHC), Taplejung	2,079
Total					1,515,079

iv) Diesel Power Stations:

1.	Duhabi Multifuel	39,000	2.	Hetauda	14,410
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v) Solar Power Stations:

1.	Simikot	50	2.	Gamgadhi	50
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Transmission Lines

a. Major Lines - Existing

i. 132 kV Transmission Lines:

S.N	Transmission Lines	Length (KM.)	Type of CKts.	S.N	Transmission Lines	Length (KM.)	Type of CKts.
1.	Anarmani-Duhabi	85.0	Single	2.	Hetauda-Gandak P/S	154.0	Single
3.	Kusha-Katiya (India)	19.0	Single	4.	Bharatpur – Pokhara	97.0	Single
5.	Duhabi- Hetauda	282.0	Double	6.	Bardaghat-Butwal	43.0	Double
7.	Hetauda – KL2 P/S	8.0	Single	8.	Butwal –KGA P/S	58.0	Double
9.	Bharatpur-Marsyangdi P/S	25.0	Single	10.	KGA P/S –Lekhnath	48.0	Single
11.	Marsyangdi P/S –Suichatar	84.0	Single	12.	Pokhara-Modikhola P/S	37.0	Single
13.	Suichatar -KL2 P/S	34.0	Single	14.	Butwal- Tanakpur P/S	407.0	Single
15.	Suichatar –New Bhaktapur	26.9	Single	16.	Pathalैया –New Parwanipur	17.0	Double
17.	New Bhaktapur – Lamosangu	48.0	Double	18.	Marsyangdi-M. Marsyangdi	44.0	Single
19.	Lamosangu – Khimti P/S	46.0	Single	Total		1562.9	

ii. 166 kV Transmission Lines:

1.	Chillime P/S –Devighat P/S	43.6	Single	2.	Suichatar –New Patan	4.0	Double
3.	Trisuli P/S – Balaju	29.0	Double	4.	Teku – K3 (Underground)	3.5	Single core
5.	Debighat P/S – Balaju	30.0	Single	6.	Suichatar –K3	6.9	Single
7.	Debighat P/S – New Chabel	33.0	Single	8.	New Patan –New Baneshwor	2.8	Single
9.	Balaju-Laincahur	2.3	Single	10.	Bhaktapur – New Chabel	12.0	Single
11.	Balaju –KL1 P/S	36.0	Double	12.	New Baneshwor – Sunkoshi P/S	61.0	Single
13.	KL 1 P/S Birgunj	72.0	Double	14.	Debighat Trisuli	4.56	Single
15.	Suichatar –Teku	4.1	Single	16.	Indrawati-Panchkhal	10.0	Single
Total						354.7	

b. Under Construction

i. 220 kV Transmission Lines

1.	Khimti-Dhalkebar	75	Single
2.	Hetauda-Bharatpur	72	Double

ii .132 kV Transmission Lines

1.	Thankot-Chapagaon	28	Double
2.	Chamaliya-Attariya	129	Single

iii. NEA Joint Venture under Public Private Partnership Program

400 kV Transmission Lines	Length (KM.)	Type of CKts.
1. kV Dhalkebar - Muzzaffarpur Cross Border Line	45.00	Double

c. Planned and Proposed

S.N	Transmission Lines	Length (KM.)	Type of CKts.	S.N	Transmission Lines	Length (KM.)	Type of CKts.
1.	220 kV New Marsyangdi-Matatirtha	85	Double	8.	132 kV Hetauda-Kulekhani-II-Siuchatar second circuit	44	D/C Tower
2.	132 kV Sangati-Lamosangu	40	Double	9.	220 kV New Hetauda-Dhalkebar-Duhabi	283	Double
3.	132 kV Kabeli-Damak	90	Double	10.	220 kV New Hetauda-Matatirtha	45	Double
4.	132 kV Middle Marshyangdi - Dumre-Marshyangdi	44	Double	11.	220 kV Bardaghat-New Butwal	30	Double
5.	132 kV Dumree-Damauli	18	Single	12.	220 kV Trishuli- Thankot	54	Double
6.	132 kV Butwal-Kohalpur Second circuit	208	D/C Tower	13.	132 kV Kohalpur-Attariya second circuit	153	D/C Tower
7.	220 kV Bharatpur-Bardghat	73	Double		Total		1167

NEA Joint Venture under Public Private Partnership Program

1.	400 kV Duhabi-Purnia Cross Border Line*	22	Double	3.	66 kV Sanjen-Chilime	12	Double
2.	400 kV New Butwal- Gorakhpur Cross Border Line*	25	Double		Total	59	

Transmission Line Sub-Station

1. Existing

S.N	Capacity	Unit MVA
1	132/11 kV	141.00
2.	132/66 kV	248.40
3	66/11 kV	460.20
4.	132/33 kV	435.50
5.	66/33 kV	25.00
	Total	1310.10

2. Planned & Proposed

S.N	Capacity	Unit MVA
6.	132/33 kV Syangja	15.00
7.	132/33 kV Anbukhaireni	15.00
8.	132/33 kV Damak	30.00
9.	132/11kV Chapali	30.00
10.	a) 132/11 kV Matatirtha	22.50
11.	b) 132/33 kV Matatirtha	32.00
	Total	144.50

3. Under Construction

1.	132/33 kV Kawasoti	30.0	2.	132/11 kV Harisidhi	22.50
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Switching Stations: Major	Transmission Line Length: Private Sector	Length (KM.)
1. New Hetauda Switching Station	1. Jhimruk-Lamhi 132 kV (Single Circuit)	50.00
2. New Butwal Switching Station	2. Bhotekosi-Lamosangu 132 kV (Single Circuit)	25.70
3. New Bharatpur Switching Station	3. Indrawati-Panchkhal 66 kV (Single Circuit)	31.00
4. Pathlaiya Switching Station	Total	106.70

Overall Scenario of Power Projects in Nepal

Sectors	Capacity (kW)
Total Major Hydro Grid Connected	401854
Total Small Hydro Isolated	5676
Total Hydro NEA	407530
Total hydro IPP	156340
Total Hydro -Nepal	563870
Total thermal (NEA)	53410
Total Solar (NEA)	100

Total Installed Capacity (including Private and Others): 617380

Note: * Private and Others. ** Leased to the Private Sector. *** Not in Normal Operation.

Source: Nepal Electricity Authority.