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Planning Power invites comments

NATIONAL POWER SYSTEM EXPANSION PLAN (NPSEP-2030)

GENERATION EXPANSION PLAN WITH REVISED COST DATA OF HYDEL PROJECTS AS DESIRED BY PLANNING COMMISSION

In accordance with the observation of the Planning Commission of Pakistan conveyed vide Member Energy Planning Commission Letter No. 10(1) ME/PC/2011 of 07-10-2011 and 10(1)/M.E/PC/12 of 03-01-2012 the cost estimates for generation addition have been updated on the basis of the cost data of Hydel projects for the year 2012 provided by WAPDA & PPIB (Annexure-1). The cost of generation expansion plan after updation amounts to 290 Billion US$ (Annexure-2) showing a slight increase of 1 Billion US$ in the previous cost of generation plan i.e. 289 Billion US$ (Annexure-3). The year-wise comparison of the revised cost of generation plan with the previous cost of base case as given in Table 23 of generation expansion report of NPSEP-2030 is presented below:

Unit: US$ Million

Year	Present Worth of Total Costs		Difference	Percentage Change
	Base Case	Base Case with Revised Cost		
2010-11	365	365	-	-
2011-12	13,822	13,830	8	0.06
2012-13	17,226	17,236	10	0.06
2013-14	20,943	20,955	12	0.06
2014-15	22,310	22,338	28	0.13
2015-16	21,365	21,423	58	0.27
2016-17	18,196	18,329	133	0.73
2017-18	15,581	15,672	91	0.59
2018-19	13,929	13,995	66	0.47
2019-20	12,612	12,642	30	0.24
2020-21	12,271	12,290	19	0.16
2021-22	11,619	11,613	-6	-0.06
2022-23	10,320	10,442	122	1.18
2023-24	9,476	9,569	93	0.98
2024-25	8,896	8,992	96	1.08
2025-26	8,716	8,761	45	0.52
2026-27	7,739	7,771	32	0.41
2027-28	6,540	6,559	19	0.28
2028-29	5,527	5,535	8	0.15
2029-30	4,770	4,771	1	0.03
Total (2010-11 to 2029-30)	**242,223**	**243,088**	**866**	**0.36**
Residual Value During the Year of 2031 to 2050	46,817	46,963	146	0.31
Total Cost Including Expected Unserved Energy Cost	**289,039**	**290,051**	**1,012**	**0.35**

This data depicts an increase of just 0.35% over 20 years of plan period. This negligible change is due to the fact that total cost of most of the Hydel projects shows a very little variation in Million US$ (Annexure-4) and the impact of this increase in cost is further nullified in the long run due to discounting effect.

In view of the exercise done we are not hesitant to state the bottom line of this long term Master Plan worth Rs.150 Million as;

"***Burning of fossil fuels and generation on oil is not only difficult for an under developed country like Pakistan but also for developed countries. Hence forth it is not viable for our already struggling economy; therefore a dire need exists to harness our indigenous coal reservoirs in South and hydel potential in North. "***

This exercise clearly illustrates that the short term changes like annual revision of load forecast, inclusion or exclusion of a certain plant, exchange rate variation etc. do not affect the original Road Map of Plan. A plan needs to be updated from time to time but still the provision of revision holds. A major change in the road map shall occur only if the bottom line is changed.

Considering the prevailing energy crisis and in the wider interest of the country, it must be realized that the existence of a comprehensive Power Sector Master Plan in the long run is necessary. Therefore the acknowledgement of the aforementioned Master Plan (NPSEP-2030) stands important. Hence generation expansion plan developed during NPSEP-2030 is still valid with the revised cost data of generation projects (Annexure-5).

It will be highly appreciated if necessary comments of your esteemed organization are received in Planning Power NTDC latest by 28th February, 2012 for consideration and incorporation in the plan, prior to a conference planned to be held in this office during March 2013, on the email address gmpp@ntdc.com.pk

ANNEXURE-1

IMPLEMENTATION SCHEDULE / FINANCING REQUIREMENTS (Rs. in million)

HYDROPOWER PROJECTS UNDER CONSTRUCTION, READY FOR IMPLEMENTATION, UNDER STUDY AND FUTURE PROJECTS

1US $ = 90 Rs.

Sr. #	Status	Project	Capacity (MW)	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	Project Cost (Rs. Million)
1	Under Construction	Allai Khwaar	121	2144																			13835
2		Khan Khwar	72	942 Mar																			8301
3		Duber Khwar	130	4302	500 Dec																		16324
4		Jinnah	96	1265	200 Dec																		5754
5		Neelum Jhelum	969	20301	22133	25460	26683	15652 Oct															321331
6		Golen Gol	106	1790	2015	1100	647																7035
7	Ready for implement ation	Diamer Basha	4500		115790	120164	134258	135716	99752	49208	48722	32312	10458										894000
8		Kurram Tangi	83		11476	23757	14761	9567															59561
9	Under Study	Tarbela 4th Ext.	960		24620	29300	17760	10824	1016														83520
10		Munda	740				15615	15615	23715	23715	23715	23715											126090
12		Keyal Khwar	122	3013	4408	3160	2942	979	980 Oct														15986
13		Phandar	80		1896	3366	1098																6360
14		Basho	28			681	2584	342															3607
15		Harpo	34.5			810	1620	1620															4050
16		Lawi	70	66	951	1848	2645	1866	512														7954
17		Dasu	4320			30763	72699	80994	77026	46144	36840	73177	37342	43988	86302	45661	25795	49629	27755				734113
18		Bunji	7100				65388	65388	98083	130777	130777	65388	65388	32694	65388								719272
19		Akhori	600								29700	29700	59400	59400	59400	59400							297000
20		Lower Spat gah	496					6663	6663	13328	13328	13328	13328										66638
21		Lower Palas Valley	665						7304	7304	14607	14610	14607	14607									73038
22		Pattan	2800									81000	108000	108000	108000	81000	54000						540000
23		Thakot	2800									81000	108000	108000	108000	81000	54000						540000
24	Future Projects	Dudhnial	960											35859	47813	59766	59766	35859					239063
25		Trappi	30					2008	2678	2008													6694
25		Yulbo	2800												91125	121500	121500	121500	91125	60750			607500
26		Tungas	2200														56700	75600	75600	75600	56700	37800	378000
27		Skardu	1600														111375	148500	148500	148500	111375	74250	742500
28		Yugo	520															40500	54000	67500	67500	40500	270000
		Total	35002.5	33822	183988	240408	358699	347235	317728	272483	297688	414231	416523	402548	566027	448327	483135	471589	396980	352350	235575	152550	6616770
		Total MWs		193	226		186	2074.5	192	30		740	4996	665	7100	600	5600	960	4320	2800		4320	35002.5

Feasibility Study | Detailed Design & Tender Documents | Pre Construction Activities | Impementation

Mar-12