

Appendix-1
Nepal Electricity Authority
Highlights of FY 2010/2011

(NRs. In Million)

Particulars	2011*	2010	2009	2008
Sales	18,003.80	17,164.59	14,405.93	15,041.49
Cost of Sales	13,239.00	12,475.35	9,935.27	15,041.49
Generation	1,045.26	1,541.27	1,119.71	979.76
Power Purchase	10,956.81	9,746.57	7,691.28	7,437.04
Royalty	855.02	849.77	796.12	839.18
Transmission	381.91	337.74	328.16	274.85
Gross Profit	4,746.80	4,689.24	4,470.66	5,510.66
Other income	1,189.58	1,188.27	1,601.67	934.66
Distribution Expenses	2,888.05	3,091.21	2,575.09	2,110.01
Administration Expenses	783.56	789.52	651.69	683.98
Profit from operation	2,282.77	1,996.78	2,845.55	3,651.33
Interest	3,535.60	3,668.65	2,492.55	2,274.37
Depreciation	3,535.60	3,668.65	2,492.55	2,274.37
(Profit) Loss on Foreign Exchange	44.44	28.67	813.96	484.10
Street light dues written off	-	-	863.00	-
Provision for losses on property, plant & equipment	-	-	-	60
Provisions (including employee retirement benefit plan)	2,053.40	2,246.01	1,246.00	1,354.00
Deferred revenue expenditure written off	150.00	112.35	96.98	108.51
Sub Total	8,744.42	8,958.60	7,873.39	6,176.15
<i>Profit(Loss) from operation in the current year</i>	<i>(6,461.65)</i>	<i>(6,961.82)</i>	<i>(5,027.84)</i>	<i>(2,524.82)</i>
Prior years (Income) Expenses	50.00	(38.29)	163.19	(151.96)
Net profit (loss) before tax	(6,511.65)	(6,9233.53)	(5,191.03)	(2,372.86)
Provision for tax	-	-	-	-
Deferred Tax expenses(income)	-	-	(97.81)	(57.39)
Net profit (loss) after tax	(6,511.65)	(6,9233.53)	(5,093.22)	(2,315.47)
Balance of profit as per last account	(21,022.36)	(14,098.83)	(8,985.61)	(6,650.14)
Prior years Deferred Tax Expenses	-	-	-	-
Total profit available for appropriation	(27,534.01)	(21,022.36)	(14,078.83)	(8,965.61)
Insurance Fund	-	-	20.00	20.00
Profit (Loss) transferred to balance sheet	(27,534.01)	(21,022.36)	(14,098.83)	(8,985.61)

* Provisional figures

Appendix – 2
Nepal Electricity Authority
Balance Sheet as of July 16, 2011

(NRs. In Million)

Particulars	2011*	2010	2009	2008
Capital and Liabilities				
Capital and Reserve				
Share Capital	42,002.26	38,651.76	33,659.46	28,382.18
Reserve and Accumulated Profit				
Capital & other reserve	1,631.31	1,631.31	1,497.85	1,407.83
Accumulated profit	(27,534.01)	(21,022.36)	(14,098.83)	(8,985.61)
Total reserve and accumulated profit	(25,902.7)	(19,391.05)	(12,600.98)	(7,577.78)
Secured Long Term Loan	62,212.32	58,231.66	53,788.45	51,368.84
Deferred Tax	693.2	693.2	693.2	793.01
Grand Total	79,005.08	78,185.57	75,540.13	73,192.04
Asset				
Property, Plant & Equipment	85,762.76	83,105.63	81,238.50	52,030.28
Capital Work in Progress	20,634.28	17,040.46	13,550.46	35,699.71
Investment	4,973.98	4,973.98	2,139.92	1,620.19
Sub Total	111,371.02	105,120.07	96,928.88	89,350.18
Current Asset				
Inventories	2,509.75	2,431.99	2,159.12	1,800.13
Sundry Debtors and other Receivable	7,282.00	6,097.74	4,854.02	5,721.08
Cash and Bank Balance	1,288.49	1,244.66	1,724.76	1,337.15
Prepaid, Advance, Loan and Deposits	2,821.08	2,733.68	2,495.13	2,319.72
Total Current Assets	13,901.32	12,508.07	11,233.03	11,178.08
Less: Current liabilities and Provision				
Sundry Creditors and Payables	33,433.00	33,651.36	29,221.35	25,482.01
Provision	7,630.20	5,576.80	3,330.78	2,085.38
Total Current Liabilities and Provision	46,063.20	39,228.16	32,552.13	27,567.39
Net Current Assets	(32,161.87)	(26,720.09)	(21,319.10)	(16,389.31)
Deferred Expenditure (To be written off)	334.02	323.67	361.22	423.33
Inter Unit Balance (Net)	(538.08)	(538.08)	(430.87)	(192.16)
Total Def. Exp. & Inter	(204.06)	(214.41)	(69.65)	231.17
Grand Total	79,005.08	78,185.57	75,540.13	73,192.04

* Provisional figures

APPENDIX-3

Calculation of Mean, Standard Deviation and Coefficient of Variation of Quick Assets and Current Liabilities (In Million)

Assume x and y be the quick assets & quick liabilities respectively

Year	X	y	(x- \bar{x})	(x- \bar{x}) ²	(y- \bar{y})	(y- \bar{y}) ²
2007/08	3,137.28	27,567.39	(486.760)	236,935.29	(8,785.33)	77,182,023.20
2008/09	3,883.99	32,552.13	259.950	67,574.00	3,800.59	14,444,484.34
2009/10	3,676.65	39,228.16	52.610	2,767.81	2,875.44	8,268,155.19
2010/11	3,798.24	46,063.20	174.200	30,345.64	9,710.48	94,293,421.83
Total	14,496.16	145,410.88		337,622.75		194,188,084.58

Computation of Mean

For Quick Assets Mean(\bar{x}) = 3,624.04

For Current Liabilities Mean(\bar{y}) = 36,352.72

Computation of Standard Deviation

For Quick Assets S.D = 335.47

For Current Liabilities S.D = 8,045.46

Computation of Coefficient of Variation

For Quick Assets (C.V) = $\frac{\sigma}{\bar{X}} \times 100\% = 8.00\%$

For Current Liabilities (C.V) = $\frac{\sigma}{\bar{Y}} \times 100\% = 22.13\%$

Appendix-4

Calculation of Mean, Standard Deviation and Coefficient of Variation of Total Current Assets and Total Assets (In Million)

Let X and Y be the current assets and total assets respectively.

Year	X	Y	$(X-\bar{X})$	$(X-\bar{X})^2$	$(Y-\bar{Y})$	$(Y-\bar{Y})^2$
2007/08	11,178.08	100,528.26	(1,027.04)	1,054,821.43	(12,369.40)	153,002,118.20
2008/09	11,233.03	108,161.91	(972.09)	944,968.68	(4,735.75)	22,427,351.74
2009/10	12,508.07	117,628.14	302.94	91,775.67	4,730.47	22,377,417.37
2010/11	13,901.32	125,272.34	1,696.19	2,877,077.47	12,374.67	153,132,643.22
Total	48,820.50	451,590.65		4,968,643.27		350,939,530.55

Computation of Mean

For Current Assets Mean(\bar{X}) = 12,205.25

For Total Assets Mean (\bar{Y}) = 112,897.66

Computation of Standard Deviation

Standard Deviation (S.D) of Current Assets = 1,286.94

Standard Deviation (S.D) of Total Assets = 10,815.72

Computation of Coefficient of Variation

Coefficient of Variation (C.V) of Current Assets = 10.05%

Coefficient of Variation (C.V) of Total Assets = 9.58%

Appendix-5

Calculation of Correlation of Coefficient and Probable Error between current assets and current liabilities (In Million)

Assume X and Y be the current assets and current liabilities respectively

Year	X	Y	X ²	Y ²	XY
2007/08	11,178.08	100,528.26	193,246,697.74	10,105,931,058.62	1,397,475,511.30
2008/09	11,233.03	108,161.91	126,180,962.98	11,698,998,774.84	1,214,985,979.88
2009/10	12,508.07	117,628.14	156,451,815.12	13,836,379,319.86	1,471,301,009.09
2010/11	13,901.32	125,272.34	193,246,697.74	15,693,159,169.07	1,741,450,885.48
Total	48,820.50	451,590.650	669,126,173.59	51,334,468,322.41	5,825,213,385.76

Computation of Correlation Co-efficient (r)

r =

0.167

Computation of Probable error of r (P.E)

$$P.E = 0.6745 \times \frac{1-r}{\sqrt{n}}$$

$$= 0.32$$

Appendix-6

Calculation of Correlation of Coefficient and Probable Error between current assets and total assets (In Million)

Assume x and y be the current assets and total assets respectively.

Year	x	y	x ²	y ²	xy
2007/08	5,721.08	11,178.08	32,730,756.37	124,949,472.49	63,950,689.92
2008/09	4,854.02	11,233.03	23,561,510.16	126,180,962.98	54,525,352.28
2009/10	6,097.74	12,508.07	37,182,433.11	156,451,815.12	76,270,958.76
2010/11	7,282.00	13,901.32	53,027,524.00	193,246,697.74	101,229,412.24
Total	23,954.84	48,820.50	146,502,223.63	600,828,948.33	295,976,413.20

Computation of Correlation Coefficient (r)

$$r = 0.93$$

Computation of Probable Error

$$P.E = 0.6745 \times \frac{1-r^2}{\sqrt{n}}$$

$$= 0.045$$

Appendix- 7

Calculation of Mean, Standard Deviation and Coefficient of Variation of Cash and bank balance and Total Assets (In Million)

Let x and y be the cash & bank balance and total assets respectively.

Year	x	y	$x-\bar{x}$	$(x-\bar{x})^2$	$y-\bar{y}$	$(y-\bar{y})^2$
2007/08	1,337.15	100,528.26	-61.61	3,796.41	-12,369.40	153,002,118.21
2008/09	1,724.76	108,161.91	326.00	106,272.74	-4,735.75	22,427,351.74
2009/10	1,244.66	117,628.14	-154.11	23,748.35	4,730.48	22,377,417.38
2010/11	1,288.49	125,272.34	-110.28	12,160.58	12,374.68	153,132,643.23
Total	5,595.06	451,590.65		145,978.07		350,939,530.56

Computation of Mean

For cash and bank balance Mean(\bar{x}) = 1,398.77

For Total Assets Mean(\bar{y}) = 112,897.66

Computation of Standard Deviation

For Cash and bank balance S.D = 220.58

For Total Assets S.D = 10,815.72

Computation of Coefficient of Variation

For Cash and bank balance C.V = 15.77%

For Total Assets C.V = 9.58%

Appendix-8

Calculation of Correlation of Coefficient and Probable Error between receivable and total assets (In Million)

Let x and y be receivable and total assets respectively.

Year	x	y	x ²	y ²	xy
2007/08	5,721.08	100,528.26	32,730,756.37	10,105,931,058.63	575,130,217.72
2008/09	4,854.02	108,161.91	23,561,510.16	11,698,998,774.85	525,020,074.38
2009/10	6,097.74	117,628.14	37,182,433.11	13,836,379,319.86	717,265,814.40
2010/11	7,282.00	125,272.34	53,027,524.00	15,693,159,169.08	912,233,179.88
Total	23,954.84	451,590.65	146,502,223.63	51,334,468,322.41	2,729,649,286.38

Computation of Correlation of Coefficient(r)

$$r = 0.77$$

Computation of Probable error (P.E)

$$P.E = 0.6745 \times \frac{1-r^2}{\sqrt{n}}$$

$$= 0.13$$

Appendix-9

Calculation of Mean, Standard Deviation and Coefficient of Variation of Total Current Liabilities and Long-term loan (In Million)

Year	x	y	$x-\bar{x}$	$(x-\bar{x})^2$	$y-\bar{y}$	$(y-\bar{y})^2$
2007/08	27,567.39	51,368.84	-8,785.33	77,182,023.21	-5,031.48	25,315,765.83
2008/09	32,552.13	53,788.45	-3,800.59	14,444,484.35	-2,611.87	6,821,851.84
2009/10	39,228.16	58,231.66	2,875.44	8,268,155.19	1,831.34	3,353,815.35
2010/11	46,063.20	62,212.32	9,710.48	94,293,421.83	5,812.00	33,779,344.00
Total	145,410.88	225,601.27		194,188,084.58		69,270,806.00

Computation of mean

For Current Liabilities Mean(\bar{x}) = 36,352.72

For Long-Term Loan Mean(\bar{y}) = 56,400.31

Computation of Standard Deviation (S.D)

For Current Liabilities S.D = 8,045.45

For Long-Term Loan S.D = 4,805.23

Computation of Coefficient of Variation (C.V)

For Current Liabilities C.V= 22.13%

For Long-Term Loan C.V = 8.5%

Appendix-10

Calculation of Correlation of Coefficient and Probable Error between current liabilities and long-term loan

Year	x	y	y ²	x ²	xy
2007/08	27,567.39	51,368.84	2,638,757,722.95	759,960,991.41	1,416,104,846.13
2008/09	32,552.13	53,788.45	2,893,197,353.40	1,059,641,167.54	1,750,928,616.90
2009/10	39,228.16	58,231.66	3,390,926,226.36	1,538,848,536.99	2,284,320,875.55
2010/11	46,063.20	62,212.32	3,870,372,759.78	2,121,818,394.24	2,865,698,538.62
Total	145,410.88	225,601.27	12,793,254,062.49	5,480,269,090.17	8,317,052,877.20

Computation of Correlation of coefficient(r)

$$r = 0.99$$

Computation of Probable Error (P.E)

$$P.E = 0.6745 \times \frac{1-r^2}{\sqrt{n}}$$

$$= 0.006$$

Appendix-11

Calculation of Correlation of Coefficient and Probable Error between current assets and sales (In Million)

Let x be the current assets and y be the sales respectively

Year	x	y	x ²	y ²	xy
2007/08	11,178.080	15,041.490	124,949,472.49	226,246,421.42	168,134,978.54
2008/09	11,233.030	14,405.930	126,180,962.98	207,530,819.16	161,822,243.87
2009/10	12,508.070	17,164.590	156,451,815.12	294,623,149.87	214,695,893.24
2010/11	13,901.320	18,003.800	193,246,697.74	324,136,814.44	250,276,585.02
Total	48,820.500	64,615.810	600,828,948.33	1,052,537,204.89	794,929,700.66

Computation of Correlation of Coefficient (r)

$$r = 0.95$$

Computation of Probable Error (P.E)

$$P.E = 0.6745 \times \frac{1-r^2}{\sqrt{n}}$$

$$= 0.03$$

Appendix-12

Calculation of Correlation of Coefficient and Probable Error between cash & bank balance and sales (In Million)

Let x and y be the cash and sales respectively.

Year	x	y	x ²	y ²	xy
2007/08	1,337.15	15,041.490	1,787,970.12	226,246,421.42	20,112,728.35
2008/09	1,724.76	14,405.930	2,974,797.06	207,530,819.16	24,846,771.83
2009/10	1,244.66	17,164.590	1,549,178.52	294,623,149.87	21,364,078.59
2010/11	1,288.49	18,003.800	1,660,206.48	324,136,814.44	23,197,716.26
Total	5,595.060	64,615.810	7,972,152.18	1,052,537,204.89	89,521,295.03

Computation of Correlation of Coefficient (r)

$$r = -0.762$$

Computation of Probable Error (P.E)

$$P.E = 0.6745 \times \frac{1-r^2}{\sqrt{n}}$$

$$= 0.14$$

Appendix-13

Calculation of Correlation of Coefficient and Probable Error between debtors and sales (In Million)

Year	x	y	x ²	y ²	xy
2007/08	5,721.08	15,041.490	32,730,756.37	226,246,421.42	86,053,567.61
2008/09	4,854.02	14,405.930	23,561,510.16	207,530,819.16	69,926,672.34
2009/10	6,097.40	17,164.590	37,178,286.76	294,623,149.87	104,659,371.07
2010/11	7,282.00	18,003.800	53,027,524.00	324,136,814.44	131,103,671.60
Total	23,954.500	64,615.810	146,498,077.29	1,052,537,204.89	391,743,282.61

Computation of Correlation of Coefficient (r)

$$r = 0.928$$

Computation of Probable Error (P.E)

$$P.E = 0.6745 \times \frac{1-r^2}{\sqrt{n}}$$

$$= 0.04$$

Appendix-14

Calculation of Correlation of Coefficient and Probable Error between Gross Profit and sales (In Million)

Let x and y be gross profit and sales respectively

Year	x	y	x ²	y ²	xy
2007/08	5,510.66	15,041.490	30,367,373.64	226,246,421.42	82,888,537.28
2008/09	4,470.66	14,405.930	19,986,800.84	207,530,819.16	64,404,015.01
2009/10	4,689.24	17,164.590	21,988,971.78	294,623,149.87	80,488,882.01
2010/11	4,764.80	18,003.800	22,703,319.04	324,136,814.44	85,784,506.24
Total	19,435.360	64,615.810	95,046,465.29	1,052,537,204.89	313,565,940.55

Computation of Correlation of Coefficient (r)

$$r = -0.169$$

Computation of Probable Error (P.E)

$$P.E = 0.6745 \times \frac{1-r^2}{\sqrt{n}}$$

$$= 0.32$$

Appendix-15

Calculation of Correlation of Coefficient and Probable Error between Inventory and Sales
(In Million)

Let x and be inventory and sales respectively.

Year	x	y	x ²	y ²	xy
2007/08	1,800.13	15,041.490	3,240,468.02	226,246,421.42	27,076,637.39
2008/09	2,159.12	14,405.930	4,661,799.17	207,530,819.16	31,104,131.58
2009/10	2,431.99	17,164.590	5,914,575.36	294,623,149.87	41,744,111.23
2010/11	2,509.75	18,003.800	6,298,845.06	324,136,814.44	45,185,037.05
Total	8,900.990	64,615.810	20,115,687.61	1,052,537,204.89	145,109,917.26

Computation of Correlation of Coefficient (r)

$$r = 0.81$$

Computation of Probable Error (P.E)

$$P.E = 0.6745 \times \frac{1-r^2}{\sqrt{n}}$$

$$= 0.12$$