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CHATTOGRAM WATER SUPPLY AND SEWERAGE AUTHORITY



MANAGEMENT INFORMATION SYSTEM REPORT
FOR THE MONTH OF December-2024

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Chattogram Water Supply & Sewerage Authority
Monthly MIS Report
December 2024

	Unit	This month	Year to date	Previous year actual	This year target *1	Evaluation *2	Remarks *3 ++ Too good ! Very bad
Selected Key Indicators							
E 17*	Non Revenue Water= $\{1-(\text{billed water}(C2)/\text{distributable water production}(E15^*))\} \times 100$	%	27	29	30	25	-17%
C 4*	Revenue collection efficiency (monthly coll.+ outstand. Coll.)/ monthly bill. = $(\text{collection}(C3)/\text{billing}(C1)) \times 100$	%	89	86	90	129	-31% !
D 9*	Collection period = $(\text{accounts receivable}(D6)/\text{monthly billings}(C1)) \times \text{number of days of month}$	Day	302	297	270	200	-49% !
F 2*	No. of perma. employee per 1000 connections(excl. non-perma. Empl.) = $(\text{No. of permanent staff}(F1) + \text{non-permanent staff}(F5) / \text{total billable connections (A1.1)}) \times 1000$	Nos.	5.6	N/A	5.8	6.0	7%
D 8*	Operating Ratio = $(\text{personal cost (D2.1)} + \text{electricity cost (D2.2)} + \text{chemical cost (D2.3)} + \text{other O \& M (D2.5.1)}) / (\text{Total Revenues}(D1))$	Ratio	0.71	0.77	0.71	0.56	-36% !
A 3.5*	Functioning meter rate of installed meter = $\text{no. of metered (A3.1)} / (\text{no. of metered (A3.1)} + \text{average reading (A3.2)}) \times 100$	%	90	N/A	90	90	0%
E 19	Water quality sample (E19)	No./month	240	1,440	2,880	2,880	-92% !
E 18*	Leakage occurrence = $(\text{no. of leakage recognized by complaint (G3)} / \text{Length of Pipeline at the end of period}(E9) / \text{no. of months covered})$	No./km/mth	0.31	0.27	0.28	2.27	88% ++
A 6*	Water supply coverage = $(\text{Billed connection (A1.3)} \times 26 \text{ Person per Connection}) + (\text{Total Street Hydrant (A4)} \times 80 \text{ Person per Street Hydrant}) / \text{Total Population in water Supply Area (N.B)} \times 100$	%	66	N/A	66	67	-1%
B 5*	Average tariff = $(\text{Total billing}(C1) / \text{Billed volume}(C2)) / 1000$	Tk/m3	18.63	18.95	19.00	20.00	-7%
E 16*	Unit production cost (in/c Capt. Cost, Deprec. & Financial Expense.) = $\text{Expenses Total}(D2) / (\text{Production distributable water}(E15^*) + \text{DTW Water directly distributed (E15.1^*)}) / 1000$	Tk/m3	20.61	19.25	20.30	21.90	12%
A) Connection data							
A 1	Total registered connections	Nos.	99,152	N/A	97,137	101,222	-2%
A 1.1	Billable (non-disconnected) connection	Nos.	93,076	N/A	91,121	95,220	-2%
A 1.2	Non-billable (disconnected) connection	Nos.	6,076	N/A	6,016	6002	-1%
A 1.3	Billed connection	Nos.	90,723	N/A	89,508	91,932	-1%
A 2	Breakdown of billable connection (by customer type)						
A 2.1*	Domestic	%	93	N/A	93	91	2%
A 2.2	Non-domestic	%	7	N/A	7	9	23%
A 3	Breakdown of billable connection (by meter status)						
A 3.1	Metered	Nos.	83,289	N/A	81,589	85,572	-3%
A 3.2	Average reading	Nos.	9,686	N/A	9,430	9,546	-1%
A 3.3	Non meter	Nos.	101	N/A	102	102	1%
A 3.4*	Meter installation rate	%	100	N/A	100	100	0%
A 3.5*	Functioning meter rate of installed meter	%	90	N/A	90	90	0%
A 4	Street Hydrant	Nos.	689	N/A	689	689	0%
A 5	Religious Institutions	Nos.	368	N/A	368	368	0%
A 6*	Water supply coverage	%	66	N/A	66	67	-1%
A 7	Bill sent-out ratio	%	97	N/A	98	97	1%

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		Unit	This month	Year to date	Previous year actual	This year target *1	Evaluation *2	Remarks *3
								++ Too good ! Very bad
B) Tariff								
B 1	Domestic	Tk/m3	18.00	N/A	18.00	18.90	-5%	
B 2	Non-domestic	Tk/m3	37.00	N/A	37.00	38.85	-5%	
B 3	Street Hydrant	Tk/m3	18.00	N/A	18.00	18.90	-5%	
B 4	Religious Institutions	Tk/m3	18.00	N/A	18.00	18.90	-5%	
B 5*	Average tariff	Tk/m3	18.63	18.95	19.00	20.00	-7%	
C) Billing and Collection								
C 1	Total billing	Tk	200,104,338	1,198,163,146	2,347,888,407	2,400,000,000	0%	
C 1.1*	Private	Tk	176,884,951	1,058,568,309	2,062,051,833	2,160,000,000	-2%	
C 1.2*	Government	Tk	23,219,387	139,594,837	285,836,574	240,000,000	16%	
C 2	Billed volume (Total Volume Accounted)	ML	10,743	63,220	123,549	120,000	5%	
C 3	Total collection	Tk	178,382,726	1,028,300,528	2,105,177,399	3,094,120,000	-34%	!
C 3.1*	Private	Tk	166,466,785	968,936,708	1,992,878,824	2,929,067,275	-34%	!
C 3.2*	Government	Tk	11,915,941	59,363,820	112,298,575	165,052,725	-28%	!
C 4*	Revenue collection efficiency (monthly coll.+ outstand. Coll.)/ monthly bill.	%	89	86	90	129	-31%	!
C 4.1*	Private	%	94	92	97	136	-31%	!
C 4.2*	Government	%	51	43	39	69	-25%	!
D) Financial data								
D 1	Revenue (Total)	Tk	201,690,204	1,149,950,142	2,425,189,135	3,457,920,000	-33%	!
D 1.1	Water revenue	Tk	178,382,726	1,028,300,528	2,105,177,399	3,094,120,000	-34%	!
D 1.2*	Tubewell license	Tk	5,129,325	20,819,500	115,878,743	100,000,000	-58%	!
D 1.3*	Other operating revenues	Tk	9,844,820	50,830,114	114,132,993	163,800,000	-38%	!
D 1.4*	Interest income	Tk	8,333,333	50,000,000	90,000,000	100,000,000	0%	
D 2	Expenses (Total)	Tk	305,078,685	1,718,638,187	3,583,597,467	4,396,985,820	22%	
D 2.1*	Personnel cost	Tk	35,961,080	233,414,409	517,744,367	631,470,000	26%	++
D 2.2	Electricity cost	Tk	80,982,000	537,352,000	912,448,000	920,000,000	-17%	
D 2.3	Chemicals	Tk	11,156,000	63,558,000	139,542,000	140,000,000	9%	
D 2.4*	Depreciation	Tk	129,182,985	775,097,910	1,500,000,000	1,550,195,820	0%	
D 2.5	Other operating cost	Tk	27,883,000	106,076,000	513,863,100	935,960,000	77%	++
D 2.5.1	Other O & M	Tk	16,062,000	49,645,000	159,148,100	260,700,000	62%	++
D 2.5.2	Capital cost from revenues	Tk	11,821,000	56,431,000	354,715,000	675,260,000	83%	++
D 2.6*	Financial expense	Tk	627,974	3,139,868	0	7,200,000	13%	
D 3	Net Income (Loss)	Tk	(103,388,481)	(568,688,044)	(1,158,408,332)	(939,065,820)	21%	
D 4*	Cash at bank	Tk	0	N/A	0	0	N/A	
D 5*	Stock & stores	Tk	0	0	0	0	N/A	
D 6	Accounts Receivable	Tk	1,952,256,585	N/A	1,737,729,584	1,737,729,584	-12%	
D 6.1*	Accounts receivable from Government	Tk	459,995,817	N/A	366,318,888	366,318,888	-26%	!
D 6.2*	Accounts receivable from Private	Tk	1,492,260,768	N/A	1,371,410,696	1,371,410,696	-9%	
D 7*	Long term loans	Tk	19,285,647	96,428,236	212,142,000	212,160,000	91%	++
D 8*	Operating Ratio	Ratio	0.71	0.77	0.71	0.56	-36%	!
D 9*	Collection period	Day	302	297	270	200	-49%	!

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	Unit	This month	Year to date	Previous year actual	This year target *1	Evaluation *2	Remarks *3
							++ Too good ! Very bad
E) Water Supply							
E 3	Capacity of Surface WTP (Mohora+Sk.H.WTP-1+Sk.H.WTP-2+SRPS)	MLD	466	N/A	466	466	0%
E 4	Capacity of Ground WTP	MLD	68	N/A	68	68	0%
E 5	Deep Tube Wells in Operation	Nos.	46	N/A	45	55	-16%
E 6*	Capacity of DTW - direct distribution	MLD	36	N/A	33	48	-24%
E 7*	Capacity of DTW - supply to GWTP	MLD	0	N/A	0	0	#DIV/0!
E 8*	Capacity of distributable water production	MLD	570	N/A	566	581	-2%
E 9	Length of Pipeline	km	962	N/A	962	992	-3%
E 15*	Production (distributable water)	ML	14,803.51	89,261	176,510.35	200,750	-11%
E 15.1*	DTW water to users before boosters	ML	0	0	0	0	N/A
E 16*	Unit production cost (in/c Capt. Cost,Deprec. & Financial Expense.)	Tk/m3	20.61	19.25	20.30	21.90	12%
E 17*	Non Revenue Water	%	27	29	30	25	-17%
E 18*	Leakage occurrence	No./km/mth	0.31	0.27	0.28	2.27	88%
E 19	Water quality sample	No./month	240	1,440	2,880	2,880	-92%
E 20*	Satisfactory sample in chlorine level	%	100	100	100	100	0%
E 21*	Satisfactory sample in microbiological level	%	100	100	100	100	0%
F) Personnel							
F 1	No. of permanent employees (Total)	Nos.	520	N/A	527	570	9%
F 1.1	Grade-3-9	Nos.	57	N/A	56	60	N/A
F 1.2	Grade-10-11	Nos.	35	N/A	36	30	N/A
F 1.3	Grade-12-16	Nos.	199	N/A	203	260	N/A
F 1.4	Grade-17-20	Nos.	229	N/A	232	220	N/A
F 5	No. of non-permanent employees (Total)	Nos.	0	N/A	0	0	#DIV/0!
F 5.1	Work charge (6 month contract worker)	Nos.	0	N/A	0	0	N/A
F 5.2	Master roll (Daily basis casual worker) Outsource in	Nos.	0	N/A	0	300	N/A
F 5.3	Project staff (hired by project budget)	Nos.	25	N/A	50	50	N/A
F 2*	No. of perma. employee per 1000 connections(excl. non-perma. Empl.)	Nos.	5.6	N/A	5.8	6.0	7%
F 3	Average Monthly Salary	Tk	30,102	N/A	21,044	33,516	10%
F 4*	% of Overtime to Basic Salary	%	45.54	N/A	24	32	-42%
G) Customer Services							
G 1	New Service Connection						
G 1.1	Service Connection Application Received	Nos.	248	1,566	4,570	4,000	-22%
G 1.2	Service Connection given	Nos.	355	1,671	4,480	3,800	-12%
G 2	Billing complaints						
G 2.1	Complaints received	Nos.	170	1,130	2,335	2,800	19%
G 2.2	Complaints acted on	Nos.	150	990	1,960	2,300	14%
G 3	Leakage complaints received and attended	Nos.	299	1,555	3,237	2,250	-38%

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N/A = not applicable (= pointless to calculate, or non-existent)

Some numbers may show the same value in spite of different values, which is due to rounding

*1: "this year target" can be set according to (1) Business Plan, (2) Performance Agreement, (3) discussion with D M D (Engineering), (same or modified value of previous year)

*2: Evaluation is made on the basis of variance from the set target. An evaluation result "X %" means that performance of particular indicator is X % better than what is set as the target.

if the NRW is 74% and the target is 20%, this performance is considered unfavorable. The evaluation result is shown as -20% (= 1 - 24 / 20).

if the number of water quality sample is recorded as 24 when the target is set at 20, this performance can be considered favorable. The evaluation result is shown as 20% (= 24 / 20 - 1).

*3: A warning sign "++" appears when the evaluation result exceeds 25%, which is considered as the high-end threshold indicating "too good".

A warning sign "--" appears when the evaluation result is less than -25%, which is considered as the low-end threshold indicating "very bad".

A2.1: If the total number of billable connections is 45,000 and the number of domestic connections in billable connections is 36,000, this will be 80% (= 36000 / 45000).

A3.4: Meter installation rate = 1 - (number of non-meter connection / number of billable connection).

A3.5: Functioning meter rate = 1 - (number of average reading connection / number of billable connection). This indicator is used as a proxy of ratio of metered water sold to total water sold.

A6: Water supply coverage is defined as (population served with piped water + population served by street hydrant) / population in service area.

in FY 2010/11, this was estimated at: 42% (= (1.192 million + 0.07 million) / 2.98 million)

Supply coverage of this month is computed based on the following assumptions used in Business Plan.

(population in service area = 3 million; user population per connection = 30; population served with standpipes = 100,000; number of standpipes = 689)

A6* :Water Supply Coverage=(Billed Connection x 26 Person per Connection + Total Street Hydrant x 80 Person per Street Hydrant) / Total Population in Water Supply Area *100.

A7: Bill sent-out ratio = Billed connection / Billable connection x 100.

B5: Average water tariff = total billing / total billed volume

C1.1: "Private" includes private customers and users of loose water (sold by bowser)

C1.2: "Government" includes government users, street hydrants and religious institutions

C3.1: Same as C1.1,

C3.2: Same as C1.2

C4: Revenue collection efficiency = collection /billing x 100. CWASA's existing accounting system cannot classify accounts receivable by age.

Therefore the revenue collection efficiency can be shown merely as (total collection during a period = total billing during the same period).

C4.1: Same as C4,

C4.2: Same as C4

C5: Metered volume to billed volume ratio data currently becomes available twice a year due to capacity limitation of computer section.

D1.2: "License and renewal fee of tubewell" in "other operating revenue"

D1.3: Excludes "License and renewal fee of tubewell"

D1.4: As the interest income is not obtainable until the year end, a proxy value is used here so that the net income can be computed. The proxy value is the previous year's monthly interest.

D2.1: Includes salary & allowances, provident fund, gratuity, festival bonus, overtime and earn leave encashment

D2.4: Data is only available quarterly instead of monthly. The cost of the latest three month is converted to a monthly average and shown in the monthly data column.

D2.6: Data is only available quarterly instead of monthly. The cost of the latest three month is converted to a monthly average and shown in the monthly data column.

D4: Under the current system, this value is not obtainable until the year end. However it is expected to become obtainable monthly in the future.

D5: Under the current system, this value is not obtainable until the year end. However it is expected to become obtainable monthly in the future.

D6.1: Same as C1.1,

D6.2: Same as C1.2

D7: Long term liabilities outstanding as unpaid at the end of month

D8: To see more clearly the CWASA capacity to generate the operating profit before depreciation and interest,

the operating ratio is defined as (personnel cost + elec. cost + chemical cost + other O & M) / (total Revenues).

D9: Collection period = (accounts receivable) / (monthly billings/number of days in month)

E6: Production capacity of deep tube wells that supply water directly to users

E7: Production capacity of deep tube wells that supply water to Karulgaht WTP

E15: Distributable water (or system input water) = Water produced at Surface WTP + Water produced at Ground WTP + Water directly distributed from DTW

E15.1: Raw water distributed directly to users from some DTWs on the way to boosters are not included in the distributable water (E15).

E16: Unit production cost = expenses(Total)/((Distributable Water Volume+DTW Water directly distributed)*1000)

E17: NRW = (unbilled water / water produced x 100) = [1 - billed water / (distributable water production + DTW Water directly distributed)] x 100

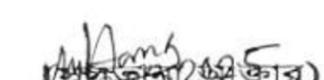
E18: Leakage occurrence = Number of leakage recognized by complaint / length of pipeline at the end of period / number of months covered

E20: This is the rate of satisfactory sample complying with the chlorine standard.

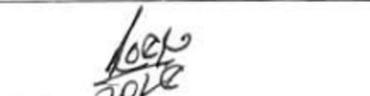
E21: This is the rate of satisfactory sample complying with the microbiological standard.

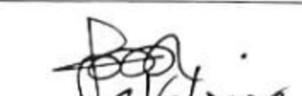
F2: No. of employee per 1000 connections = (number of permanent staff + non-permanent staff) / (total billable connections/1000)

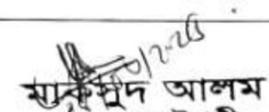
F4: Only staff workers (Class 3 and Class 4) receive overtime. Thus this ratio is computed based on Class 3 and Class 4 workers' pay.


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26/6/2020
মোহাম্মদ মাসুদ হোসেন
উপ-প্রোগ্রামার
ডিভিশনাল ও নির্মাণ সার্কেল


26/6/2020
মাসুদ আলম
প্রধান প্রকৌশলী
চট্টগ্রাম ওয়াসা, চট্টগ্রাম।
DMD (E)
প্রকৌ. বিষ্ণু কুমার সরকার
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