

**Ведомость учета среднечасового отпуска тепловой энергии в системе отопления**  
за период с 23.11.20 г. по 22.12.20 г.

: 48

48 , 26

: 00009916

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1.2

T = 5,00 °C

= G max= 30,00 3/ G min= 0,08 3/ = 1 /  
 = G max= 30,00 3/ G min= 0,08 3/ = 1 /  
 = G max= 30,00 3/ G min= 0,08 3/ = 1 /

	, Q ,	, Q ,	, M, , V, 3								, °C,							T	T /	
							+dM	-dM	dV	/		t1	t2	dt=t1-t2	t3( )	P1	P2			P3( )
			M1	V1	M2	V2				M3( )	V3( )									
23.11.20	1.11	---	41.84	42.96	39.55	40.07	2.29		2.88	---	---	76.94	53.13	23.81	---	0.60	0.49	---	24.00	0.00
24.11.20	1.23	---	43.09	44.33	40.37	40.94	2.72		3.39	---	---	80.45	55.18	25.27	---	0.60	0.49	---	24.00	0.00
25.11.20	1.19	---	42.95	44.21	41.09	41.69	1.86		2.52	---	---	81.11	55.65	25.46	---	0.60	0.48	---	24.00	0.00
26.11.20	1.23	---	43.23	44.48	40.89	41.46	2.34		3.02	---	---	80.51	54.87	25.64	---	0.60	0.48	---	24.00	0.00
27.11.20	1.60	---	45.71	47.25	40.78	41.42	4.93		5.83	---	---	87.23	57.97	29.26	---	0.60	0.48	---	24.00	0.00
28.11.20	1.39	---	42.38	43.87	40.74	41.40	1.64		2.47	---	---	89.66	58.98	30.68	---	0.60	0.48	---	24.00	0.00
29.11.20	1.58	---	43.82	45.48	41.08	41.78	2.75		3.70	---	---	93.09	60.62	32.47	---	0.61	0.49	---	24.00	0.00
30.11.20	1.49	---	42.89	44.47	40.95	41.63	1.94		2.84	---	---	91.97	59.85	32.12	---	0.61	0.49	---	24.00	0.00
01.12.20	1.52	---	43.33	44.95	41.13	41.83	2.20		3.12	---	---	92.40	60.27	32.13	---	0.61	0.49	---	24.00	0.00
02.12.20	1.31	---	41.76	43.26	41.33	42.02	0.44		1.25	---	---	90.63	59.89	30.74	---	0.61	0.49	---	24.00	0.00
03.12.20	1.33	---	42.75	44.19	41.24	41.90	1.51		2.30	---	---	87.39	58.20	29.19	---	0.62	0.49	---	24.00	0.00
04.12.20	1.32	---	41.40	42.91	40.96	41.65	0.44		1.26	---	---	91.32	60.17	31.15	---	0.62	0.50	---	24.00	0.00
05.12.20	1.33	---	40.92	42.46	40.73	41.43	0.19		1.03	---	---	92.85	60.79	32.06	---	0.62	0.50	---	24.00	0.00
06.12.20	1.58	---	44.40	46.01	40.83	41.52	3.57		4.49	---	---	91.07	60.03	31.04	---	0.61	0.49	---	24.00	0.00
07.12.20	1.56	---	45.49	47.00	40.84	41.48	4.65		5.52	---	---	86.75	57.98	28.77	---	0.62	0.50	---	24.00	0.00
08.12.20	1.26	---	43.56	44.85	41.12	41.71	2.44		3.14	---	---	81.45	55.48	25.97	---	0.61	0.49	---	24.00	0.00
09.12.20	1.26	---	41.48	42.88	40.92	41.56	0.56		1.32	---	---	87.47	57.92	29.55	---	0.60	0.48	---	24.00	0.00
10.12.20	1.46	---	40.92	42.60	40.53	41.27	0.39		1.33	---	---	97.61	62.62	34.99	---	0.60	0.48	---	24.00	0.00
11.12.20	1.41	---	41.13	42.78	40.89	41.63	0.24		1.15	---	---	96.12	62.28	33.84	---	0.60	0.48	---	24.00	0.00
12.12.20	1.37	---	41.22	42.81	41.27	41.99		-0.05	0.82	---	---	94.01	60.85	33.16	---	0.61	0.49	---	24.00	0.00
13.12.20	1.36	---	41.63	43.11	40.39	41.05	1.24		2.07	---	---	90.18	59.22	30.96	---	0.60	0.48	---	24.00	0.00
14.12.20	1.25	---	41.64	43.04	41.06	41.71	0.58		1.33	---	---	87.35	58.20	29.15	---	0.61	0.48	---	24.00	0.00
15.12.20	1.22	---	41.59	42.89	39.92	40.52	1.68		2.38	---	---	83.91	56.60	27.31	---	0.61	0.49	---	24.00	0.00
16.12.20	1.27	---	40.49	41.85	39.15	39.75	1.34		2.10	---	---	86.86	57.22	29.64	---	0.60	0.48	---	24.00	0.00
17.12.20	1.43	---	41.19	42.87	40.87	41.61	0.32		1.25	---	---	96.91	62.70	34.21	---	0.61	0.49	---	24.00	0.00
18.12.20	1.16	---	41.17	42.42	40.24	40.82	0.93		1.60	---	---	82.50	55.45	27.05	---	0.61	0.48	---	24.00	0.00
19.12.20	1.00	---	40.99	42.07	40.47	40.99	0.52		1.08	---	---	76.42	52.63	23.79	---	0.61	0.49	---	24.00	0.00
20.12.20	0.93	---	40.67	41.71	41.51	42.02		-0.83	-0.31	---	---	75.15	51.51	23.64	---	0.60	0.48	---	24.00	0.00
21.12.20	1.04	---	40.76	41.89	40.40	40.94	0.36		0.95	---	---	78.59	53.45	25.14	---	0.60	0.48	---	24.00	0.00
22.12.20	1.23	---	41.31	42.68	40.78	41.42	0.52		1.26	---	---	86.67	57.73	28.94	---	0.60	0.48	---	24.00	0.00
	39.39	---	1265.73	1308.29	1222.04	1241.23	44.57		-0.88	67.06	---	---							720.00	0.00

$$T = \quad + \max + T_{min} + T_{dt} + T$$

$$720.00 = 720.00 + 0.00 + 0.00 + 0.00 + 0.00$$

	24-00	24-00	
,	<b>282.39</b>	<b>321.78</b>	<b>39.39</b>
,	---	---	---
,	<b>10660.29</b>	<b>11926.02</b>	<b>1265.73</b>
,	<b>9879.67</b>	<b>11101.71</b>	<b>1222.04</b>
( ) ,	---	---	---
,	<b>8909.00</b>	<b>9629.00</b>	<b>720.00</b>
max + T <sub>min</sub> + T <sub>dt</sub> + T ,	4739.20	4739.20	0.00

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**Ведомость учета среднечасового отпуска тепловой энергии в системе отопления**  
за период с 23.11.20 г. по 22.12.20 г.

: 48

48 , 26

: 00009916

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3.1

T = 5,00 °C

= G max= 12,00 3/ G min= 0,02 3/ = 0,5 /  
 = G max= 0,00 3/ G min= 0,00 3/ = 0,5 /  
 = G max= 0,00 3/ G min= 0,00 3/ = 0,5 /

	, Q ,	, Q ,	, M, , V, 3								, °C,							T	T /	
							+dM	-dM	dV	/		t1	t2	dt=t1-t2	t3( )	P1	P2			P3( )
			M1	V1	M2	V2				M3( )	V3( )									
23.11.20	0.14	---	1.97	2.02	---	---			0.00	---	---	74.02	---	69.02	---	0.59	---	---	24.00	0.00
24.11.20	0.18	---	2.33	2.40	---	---			0.00	---	---	80.32	---	75.32	---	0.59	---	---	24.00	0.00
25.11.20	0.10	---	1.44	1.48	---	---			0.00	---	---	76.33	---	71.33	---	0.59	---	---	24.00	0.00
26.11.20	0.16	---	2.00	2.06	---	---			0.00	---	---	84.45	---	79.45	---	0.60	---	---	24.00	0.00
27.11.20	0.38	---	4.59	4.75	---	---			0.00	---	---	88.63	---	83.63	---	0.59	---	---	24.00	0.00
28.11.20	0.11	---	1.33	1.37	---	---			0.00	---	---	87.66	---	82.66	---	0.59	---	---	24.00	0.00
29.11.20	0.21	---	2.46	2.55	---	---			0.00	---	---	89.87	---	84.87	---	0.60	---	---	24.00	0.00
30.11.20	0.13	---	1.63	1.69	---	---			0.00	---	---	86.45	---	81.45	---	0.60	---	---	24.00	0.00
01.12.20	0.16	---	1.94	2.01	---	---			0.00	---	---	89.78	---	84.78	---	0.60	---	---	24.00	0.00
02.12.20	0.01	---	0.15	0.16	---	---			0.00	---	---	73.77	---	68.77	---	0.61	---	---	24.00	0.00
03.12.20	0.09	---	1.19	1.23	---	---			0.00	---	---	84.15	---	79.15	---	0.61	---	---	24.00	0.00
04.12.20	0.01	---	0.18	0.18	---	---			0.00	---	---	69.90	---	64.90	---	0.61	---	---	24.00	0.00
05.12.20	0.00	---	0.00	0.00	---	---			0.00	---	---	54.25	---	49.25	---	0.61	---	---	24.00	0.00
06.12.20	0.28	---	3.31	3.42	---	---			0.00	---	---	88.88	---	83.88	---	0.61	---	---	24.00	0.00
07.12.20	0.35	---	4.36	4.51	---	---			0.00	---	---	85.36	---	80.36	---	0.61	---	---	24.00	0.00
08.12.20	0.16	---	2.17	2.24	---	---			0.00	---	---	80.71	---	75.71	---	0.60	---	---	24.00	0.00
09.12.20	0.02	---	0.34	0.34	---	---			0.00	---	---	67.28	---	62.28	---	0.56	---	---	24.00	0.00
10.12.20	0.01	---	0.19	0.19	---	---			0.00	---	---	56.43	---	51.43	---	0.47	---	---	24.00	0.00
11.12.20	0.00	---	0.07	0.07	---	---			0.00	---	---	54.30	---	49.30	---	0.47	---	---	24.00	0.00
12.12.20	0.18	---	3.24	3.30	---	---			0.00	---	---	59.18	---	54.18	---	0.47	---	---	24.00	0.00
13.12.20	0.37	---	6.98	7.09	---	---			0.00	---	---	57.60	---	52.60	---	0.46	---	---	24.00	0.00
14.12.20	0.02	---	0.34	0.35	---	---			0.00	---	---	53.53	---	48.53	---	0.47	---	---	24.00	0.00
15.12.20	0.20	---	4.14	4.20	---	---			0.00	---	---	53.92	---	48.92	---	0.47	---	---	24.00	0.00
16.12.20	0.05	---	1.06	1.08	---	---			0.00	---	---	54.45	---	49.45	---	0.47	---	---	24.00	0.00
17.12.20	0.00	---	0.08	0.08	---	---			0.00	---	---	52.57	---	47.57	---	0.47	---	---	24.00	0.00
18.12.20	0.37	---	7.85	7.95	---	---			0.00	---	---	52.28	---	47.28	---	0.47	---	---	24.00	0.00
19.12.20	0.12	---	2.74	2.77	---	---			0.00	---	---	50.36	---	45.36	---	0.47	---	---	24.00	0.00
20.12.20	0.37	---	8.56	8.66	---	---			0.00	---	---	48.85	---	43.85	---	0.47	---	---	24.00	0.00
21.12.20	0.17	---	3.68	3.73	---	---			0.00	---	---	52.20	---	47.20	---	0.47	---	---	24.00	0.00
22.12.20	0.01	---	0.21	0.22	---	---			0.00	---	---	54.11	---	49.11	---	0.47	---	---	24.00	0.00
	4.39	---	70.57	72.10	---	---			0.00	0.00	0.00	---	---	---	---	---	---	---	720.00	0.00

$$T = \quad + \max + T_{min} + T_{dt} + T$$

$$720.00 = 720.00 + 0.00 + 0.00 + 0.00 + 0.00$$

	24-00	24-00	
,	65.86	70.25	4.39
,	---	---	---
,	1217.92	1288.49	70.57
,	---	---	---
( ) ,	---	---	---
,	9729.08	10449.08	720.00
max + T <sub>min</sub> + T <sub>dt</sub> + T ,	3919.12	3919.12	0.00

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