

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

: 16 3-4

16 3-4 ,

: -9.2.1
: 00003060

1

1.1

T = 5,00 °C

= G max= 45,00 3/ G min= 0,18 3/ = 10 /
 = G max= 45,00 3/ G min= 0,18 3/ = 10 /
 = G max= 45,00 3/ G min= 0,00 3/ = 10 /

| | , Q , | , Q , | , M, , V, 3 | | | | | | | | , °C, | | | | | | | | | | |
|----------|-------|-------|-------------|------|------|------|------|------|------|-------|-------|-------|-------|----------|-------|------|------|-------|------|--------|---------|
| | | | | | | | +dM | -dM | dV | / | | t1 | t2 | dt=t1-t2 | t3() | P1 | P2 | P3() | T | | T / |
| | | | M1 | V1 | M2 | V2 | | | | M3() | V3() | | | | | | | | | | |
| 23.11.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 61.96 | 46.61 | 15.35 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 24.11.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 61.94 | 46.33 | 15.61 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 25.11.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 61.98 | 46.24 | 15.74 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 26.11.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 62.65 | 46.35 | 16.30 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 27.11.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 68.05 | 48.99 | 19.06 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 28.11.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 69.97 | 49.70 | 20.27 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 29.11.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 70.37 | 49.81 | 20.56 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 30.11.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 67.93 | 48.76 | 19.17 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 01.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 62.39 | 46.09 | 16.30 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 02.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 62.45 | 45.83 | 16.62 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 03.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 63.27 | 46.35 | 16.92 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 04.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 65.01 | 47.25 | 17.76 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 05.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 65.58 | 46.33 | 19.25 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 06.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 63.23 | 45.37 | 17.86 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 07.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 62.31 | 45.20 | 17.11 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 08.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 62.62 | 46.49 | 16.13 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 09.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 66.48 | 49.84 | 16.64 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 10.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 69.02 | 51.10 | 17.92 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 11.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 64.16 | 48.14 | 16.02 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 12.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 66.48 | 49.67 | 16.81 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 13.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 63.97 | 48.54 | 15.43 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 14.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 62.70 | 47.57 | 15.13 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 15.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 62.52 | 47.76 | 14.76 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 16.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 66.46 | 49.55 | 16.91 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 17.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 69.29 | 51.45 | 17.84 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 18.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 62.60 | 47.94 | 14.66 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 19.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 62.72 | 48.29 | 14.43 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 20.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 62.91 | 48.46 | 14.45 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 21.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 62.76 | 48.44 | 14.32 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| 22.12.20 | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | --- | --- | 63.50 | 48.16 | 15.34 | --- | 0.54 | 0.46 | --- | 0.00 | 24.00 | 9,A,I,J |
| | 0.00 | --- | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | --- | --- | | | | | | | | 0.00 | 720.00 | |

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

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

| | | | |
|--|-----------------|-----------------|-------------|
| | 24-00 | 24-00 | |
| | 183.93 | 183.93 | 0.00 |
| | --- | --- | --- |
| | 14715.80 | 14715.80 | 0.00 |
| | 14582.66 | 14582.66 | 0.00 |
| () | --- | --- | --- |
| | 4546.83 | 4546.83 | 0.00 |
| max + T _{min} + T _{dt} + T | 2757.02 | 3477.02 | 720.00 |

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

: 16 3-4

16 3-4 ,

: -9.2.1
: 00003060

2

1.1

T = 5,00 °C

= G max= 12,00 3/ G min= 0,00 3/ = 10 /
 = G max= 3,00 3/ G min= 0,00 3/ = 1 /
 = G max= 0,00 3/ G min= 0,00 3/ = 1 /

| | , Q , | , Q , | , M, , V, 3 | | | | | | | | , °C, | | | | | | | | | | |
|----------|-------|-------|-------------|---------|--------|--------|--------|------|--------|-------|-------|-------|-------|----------|-------|------|------|-------|--------|------|-----|
| | | | | | | | +dM | -dM | dV | / | | t1 | t2 | dt=t1-t2 | t3() | P1 | P2 | P3() | T | T / | |
| | | | M1 | V1 | M2 | V2 | | | | M3() | V3() | | | | | | | | | | |
| 23.11.20 | 1.26 | --- | 40.09 | 40.80 | 21.75 | 22.03 | 18.33 | | 18.77 | --- | --- | 61.91 | 52.15 | 9.76 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 24.11.20 | 1.26 | --- | 39.71 | 40.42 | 21.37 | 21.64 | 18.35 | | 18.78 | --- | --- | 61.89 | 51.97 | 9.92 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 25.11.20 | 1.27 | --- | 40.08 | 40.79 | 21.48 | 21.75 | 18.60 | | 19.04 | --- | --- | 61.93 | 52.03 | 9.90 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 26.11.20 | 1.28 | --- | 39.86 | 40.58 | 21.50 | 21.77 | 18.36 | | 18.81 | --- | --- | 62.58 | 52.30 | 10.28 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 27.11.20 | 1.39 | --- | 39.27 | 40.10 | 21.32 | 21.63 | 17.95 | | 18.47 | --- | --- | 67.95 | 55.87 | 12.08 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 28.11.20 | 1.44 | --- | 39.24 | 40.12 | 21.22 | 21.55 | 18.02 | | 18.57 | --- | --- | 69.84 | 57.14 | 12.70 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 29.11.20 | 1.46 | --- | 39.29 | 40.18 | 21.12 | 21.45 | 18.17 | | 18.73 | --- | --- | 70.25 | 57.26 | 12.99 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 30.11.20 | 1.41 | --- | 39.58 | 40.42 | 21.26 | 21.57 | 18.32 | | 18.85 | --- | --- | 67.80 | 55.64 | 12.16 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 01.12.20 | 1.31 | --- | 40.33 | 41.06 | 21.39 | 21.66 | 18.94 | | 19.40 | --- | --- | 62.34 | 51.80 | 10.54 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 02.12.20 | 1.31 | --- | 39.15 | 39.86 | 20.29 | 20.54 | 18.86 | | 19.32 | --- | --- | 62.39 | 51.46 | 10.93 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 03.12.20 | 1.35 | --- | 39.69 | 40.42 | 20.45 | 20.71 | 19.24 | | 19.71 | --- | --- | 63.19 | 52.06 | 11.13 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 04.12.20 | 1.29 | --- | 39.45 | 40.22 | 22.13 | 22.43 | 17.32 | | 17.79 | --- | --- | 65.05 | 53.83 | 11.22 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 05.12.20 | 1.27 | --- | 38.11 | 38.87 | 21.25 | 21.54 | 16.86 | | 17.33 | --- | --- | 65.47 | 53.91 | 11.56 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 06.12.20 | 1.20 | --- | 37.83 | 38.53 | 21.10 | 21.37 | 16.73 | | 17.16 | --- | --- | 63.15 | 52.38 | 10.77 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 07.12.20 | 1.16 | --- | 38.28 | 38.97 | 21.99 | 22.27 | 16.29 | | 16.70 | --- | --- | 62.25 | 51.94 | 10.31 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 08.12.20 | 1.24 | --- | 41.12 | 41.87 | 23.67 | 23.98 | 17.45 | | 17.89 | --- | --- | 62.58 | 52.90 | 9.68 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 09.12.20 | 1.44 | --- | 45.56 | 46.49 | 26.41 | 26.81 | 19.15 | | 19.68 | --- | --- | 66.40 | 56.41 | 9.99 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 10.12.20 | 1.48 | --- | 44.57 | 45.54 | 25.74 | 26.14 | 18.83 | | 19.40 | --- | --- | 68.95 | 58.26 | 10.69 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 11.12.20 | 1.38 | --- | 44.63 | 45.48 | 25.54 | 25.90 | 19.09 | | 19.58 | --- | --- | 64.10 | 54.45 | 9.65 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 12.12.20 | 1.47 | --- | 45.58 | 46.51 | 25.98 | 26.36 | 19.60 | | 20.15 | --- | --- | 66.40 | 56.33 | 10.07 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 13.12.20 | 1.41 | --- | 45.96 | 46.83 | 26.27 | 26.64 | 19.69 | | 20.19 | --- | --- | 63.93 | 54.69 | 9.24 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 14.12.20 | 1.36 | --- | 45.16 | 45.98 | 25.70 | 26.05 | 19.46 | | 19.93 | --- | --- | 62.66 | 53.59 | 9.07 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 15.12.20 | 1.35 | --- | 45.55 | 46.38 | 26.04 | 26.39 | 19.51 | | 19.99 | --- | --- | 62.48 | 53.62 | 8.86 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 16.12.20 | 1.42 | --- | 44.82 | 45.73 | 25.95 | 26.33 | 18.87 | | 19.40 | --- | --- | 66.35 | 56.25 | 10.10 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 17.12.20 | 1.50 | --- | 45.10 | 46.09 | 25.97 | 26.39 | 19.12 | | 19.70 | --- | --- | 69.15 | 58.61 | 10.54 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 18.12.20 | 1.37 | --- | 45.86 | 46.69 | 26.10 | 26.45 | 19.76 | | 20.24 | --- | --- | 62.56 | 53.76 | 8.80 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 19.12.20 | 1.36 | --- | 46.11 | 46.95 | 26.49 | 26.85 | 19.62 | | 20.10 | --- | --- | 62.69 | 54.01 | 8.68 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 20.12.20 | 1.39 | --- | 46.05 | 46.89 | 26.04 | 26.40 | 20.00 | | 20.49 | --- | --- | 62.87 | 54.22 | 8.65 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 21.12.20 | 1.36 | --- | 46.01 | 46.85 | 26.45 | 26.81 | 19.56 | | 20.04 | --- | --- | 62.72 | 54.09 | 8.63 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| 22.12.20 | 1.33 | --- | 44.28 | 45.11 | 25.68 | 26.03 | 18.60 | | 19.08 | --- | --- | 63.46 | 54.21 | 9.25 | --- | 0.54 | 0.46 | --- | 24.00 | 0.00 | I,J |
| | 40.51 | --- | 1266.32 | 1290.73 | 707.65 | 717.44 | 558.67 | 0.00 | 573.29 | --- | --- | | | | | | | | 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 | |
| , | 240.54 | 281.05 | 40.51 |
| , | --- | --- | --- |
| , | 10282.59 | 11548.91 | 1266.32 |
| , | 6882.71 | 7590.36 | 707.65 |
| () , | --- | --- | --- |
| , | 7303.78 | 8023.78 | 720.00 |
| max + T _{min} + T _{dt} + T , | 0.00 | 0.00 | 0.00 |
