

Общие параметры

Активная база данных: 1    Потребитель: Саянская 3, узел № 2  
Поставщик:

| Дата        | БД  | НС  |
|-------------|-----|-----|
| 23.02.21    | 1   |     |
| 24.02.21    | 1   |     |
| 25.02.21    | 1   |     |
| 26.02.21    | 1   |     |
| 27.02.21    | 1   |     |
| 28.02.21    | 1   |     |
| 01.03.21    | 1   |     |
| 02.03.21    | 1   |     |
| 03.03.21    | 1   |     |
| 04.03.21    | 1   |     |
| 05.03.21    | 1   |     |
| 06.03.21    | 1   |     |
| 07.03.21    | 1   |     |
| 08.03.21    | 1   |     |
| 09.03.21    | 1   |     |
| 10.03.21    | 1   |     |
| 11.03.21    | 1   |     |
| 12.03.21    | 1   |     |
| 13.03.21    | 1   |     |
| 14.03.21    | 1   |     |
| 15.03.21    | 1   |     |
| 16.03.21    | 1   |     |
| 17.03.21    | 1   |     |
| 18.03.21    | 1   |     |
| 19.03.21    | 1   |     |
| 20.03.21    | 1   |     |
| 21.03.21    | 1   |     |
| 22.03.21    | 1   |     |
| Среднее     | --- | --- |
| Итого       | --- | --- |
| На 23.02.21 | --- | --- |
| На 22.03.21 | --- | --- |

Ответственный за учет \_\_\_\_\_

Отчет принят " \_\_ " \_\_\_\_\_ 20\_\_ г. \_\_\_\_\_ / \_\_\_\_\_ /

Тепловой ввод 1. Схема 3

Активная база данных: 1 Потребитель: Саянская 3, узел № 2  
Поставщик:

| Дата        | Схема | Qс,<br>Гкал | Qг,<br>Гкал | M1,<br>т  | M2,<br>т  | M3,<br>т | Mr,<br>т | V1,<br>м3 | V2,<br>м3 | V3,<br>м3 | dV,<br>м3 | t1,<br>°C | t2,<br>°C | t3,<br>°C | dt,<br>°C | P1,<br>кгс/см2 | P2,<br>кгс/см2 | ВНП,<br>ч | ВОС,<br>ч | HC<br>Qo | HC<br>Qr | HC<br>M1 | HC<br>M2 | HC<br>M3 | HC<br>Mr | HC<br>V1 | HC<br>V2 | HC<br>V3 | HC<br>t1 | HC<br>t2 | HC<br>t3 | HC<br>dt | HC<br>P1 | HC<br>P2 |
|-------------|-------|-------------|-------------|-----------|-----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------------|----------------|-----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 23.02.21    | 3     | 7,797       | 0,000       | 143,040   | 130,290   | 0,000    | 12,750   | 149,190   | 131,760   | 0,000     | 17,430    | 99,88     | 49,41     | 49,41     | 50,47     | 5,400          | 4,980          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 24.02.21    | 3     | 8,317       | 0,000       | 139,260   | 130,470   | 0,000    | 8,790    | 146,350   | 132,190   | 0,000     | 14,160    | 109,46    | 52,91     | 52,91     | 56,55     | 5,480          | 5,060          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 25.02.21    | 3     | 7,077       | 0,000       | 140,750   | 131,170   | 0,000    | 9,580    | 146,630   | 132,780   | 0,000     | 13,850    | 97,96     | 50,84     | 50,78     | 47,12     | 5,440          | 5,020          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 26.02.21    | 3     | 7,341       | 0,000       | 140,020   | 132,100   | 0,000    | 7,920    | 146,090   | 133,710   | 0,000     | 12,380    | 99,98     | 50,18     | 50,17     | 49,80     | 5,430          | 5,010          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 27.02.21    | 3     | 8,043       | 0,000       | 140,680   | 131,670   | 0,000    | 9,010    | 147,310   | 133,340   | 0,000     | 13,970    | 105,06    | 50,96     | 50,95     | 54,10     | 5,470          | 5,050          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 28.02.21    | 3     | 8,151       | 0,000       | 142,470   | 130,800   | 0,000    | 11,670   | 149,030   | 132,390   | 0,000     | 16,640    | 103,69    | 50,29     | 50,28     | 53,40     | 5,390          | 4,990          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 01.03.21    | 3     | 8,125       | 0,000       | 140,910   | 131,700   | 0,000    | 9,210    | 147,620   | 133,340   | 0,000     | 14,280    | 105,46    | 50,91     | 50,90     | 54,55     | 5,460          | 5,040          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 02.03.21    | 3     | 7,470       | 0,000       | 134,420   | 124,470   | 0,000    | 9,950    | 140,510   | 125,970   | 0,000     | 14,540    | 102,61    | 50,49     | 50,35     | 52,12     | 5,430          | 5,010          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 03.03.21    | 3     | 7,165       | 0,000       | 124,900   | 112,690   | 0,000    | 12,210   | 130,480   | 113,940   | 0,000     | 16,540    | 101,93    | 48,94     | 48,93     | 52,99     | 5,430          | 4,980          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 04.03.21    | 3     | 6,382       | 0,000       | 131,250   | 119,550   | 0,000    | 11,700   | 136,080   | 120,760   | 0,000     | 15,320    | 91,41     | 46,47     | 46,53     | 44,94     | 5,440          | 5,000          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 05.03.21    | 3     | 5,276       | 0,000       | 141,090   | 130,780   | 0,000    | 10,310   | 144,990   | 131,950   | 0,000     | 13,040    | 78,18     | 43,56     | 43,52     | 34,62     | 5,390          | 4,980          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 06.03.21    | 3     | 4,637       | 0,000       | 141,470   | 129,370   | 0,000    | 12,100   | 144,680   | 130,370   | 0,000     | 14,310    | 70,51     | 40,76     | 40,75     | 29,75     | 5,360          | 4,950          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 07.03.21    | 3     | 4,658       | 0,000       | 142,090   | 128,450   | 0,000    | 13,640   | 145,270   | 129,410   | 0,000     | 15,860    | 69,75     | 40,35     | 40,35     | 29,40     | 5,370          | 4,980          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 08.03.21    | 3     | 5,269       | 0,000       | 142,290   | 128,720   | 0,000    | 13,570   | 146,000   | 129,830   | 0,000     | 16,170    | 75,90     | 42,41     | 42,40     | 33,49     | 5,350          | 4,940          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 09.03.21    | 3     | 5,069       | 0,000       | 141,700   | 130,160   | 0,000    | 11,540   | 145,320   | 131,290   | 0,000     | 14,030    | 74,89     | 42,09     | 42,10     | 32,80     | 5,390          | 4,980          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 10.03.21    | 3     | 5,456       | 0,000       | 143,580   | 133,010   | 0,000    | 10,570   | 147,630   | 134,230   | 0,000     | 13,400    | 79,20     | 44,08     | 44,06     | 35,12     | 5,470          | 5,050          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 11.03.21    | 3     | 4,876       | 0,000       | 141,620   | 129,830   | 0,000    | 11,790   | 145,140   | 130,970   | 0,000     | 14,170    | 73,78     | 42,45     | 42,43     | 31,33     | 5,390          | 4,980          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 12.03.21    | 3     | 4,845       | 0,000       | 140,410   | 130,640   | 0,000    | 9,770    | 143,960   | 131,800   | 0,000     | 12,160    | 74,57     | 42,66     | 42,63     | 31,91     | 5,350          | 4,940          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 13.03.21    | 3     | 6,004       | 0,000       | 140,710   | 130,020   | 0,000    | 10,690   | 145,210   | 131,210   | 0,000     | 14,000    | 84,57     | 44,93     | 44,92     | 39,64     | 5,420          | 5,020          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 14.03.21    | 3     | 6,663       | 0,000       | 140,440   | 130,370   | 0,000    | 10,070   | 145,510   | 131,870   | 0,000     | 13,640    | 91,29     | 46,86     | 46,86     | 44,43     | 5,440          | 5,030          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 15.03.21    | 3     | 6,692       | 0,000       | 139,900   | 132,110   | 0,000    | 7,790    | 145,240   | 133,600   | 0,000     | 11,640    | 93,39     | 47,99     | 47,99     | 45,40     | 5,470          | 5,050          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 16.03.21    | 3     | 6,293       | 0,000       | 141,230   | 132,210   | 0,000    | 9,020    | 146,200   | 133,600   | 0,000     | 12,600    | 89,04     | 47,18     | 47,16     | 41,86     | 5,480          | 5,050          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 17.03.21    | 3     | 5,871       | 0,000       | 141,190   | 130,910   | 0,000    | 10,280   | 145,480   | 132,220   | 0,000     | 13,260    | 83,42     | 44,72     | 44,71     | 38,70     | 5,410          | 5,000          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 18.03.21    | 3     | 5,553       | 0,000       | 140,790   | 131,360   | 0,000    | 9,430    | 144,920   | 132,590   | 0,000     | 12,330    | 81,12     | 44,31     | 44,29     | 36,81     | 5,430          | 5,000          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 19.03.21    | 3     | 5,294       | 0,000       | 140,860   | 131,210   | 0,000    | 9,650    | 144,770   | 132,420   | 0,000     | 12,350    | 78,46     | 43,48     | 43,47     | 34,98     | 5,420          | 5,010          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 20.03.21    | 3     | 4,665       | 0,000       | 140,610   | 129,540   | 0,000    | 11,070   | 143,900   | 130,570   | 0,000     | 13,330    | 71,59     | 41,23     | 41,23     | 30,36     | 5,410          | 5,000          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 21.03.21    | 3     | 4,619       | 0,000       | 142,420   | 128,890   | 0,000    | 13,530   | 145,590   | 130,010   | 0,000     | 15,580    | 70,36     | 41,35     | 41,34     | 29,01     | 5,380          | 4,980          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 22.03.21    | 3     | 4,314       | 0,000       | 139,840   | 130,270   | 0,000    | 9,570    | 142,960   | 131,340   | 0,000     | 11,620    | 69,75     | 41,35     | 41,34     | 28,40     | 5,400          | 4,990          | 24,00     | 0,00      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| Среднее     | 3     | 6,140       | 0,000       | 139,998   | 129,384   | 0,000    | 10,614   | 144,716   | 130,695   | 0,000     | 14,021    | 86,69     | 45,83     | 45,81     | 40,86     | 5,418          | 5,003          | 24,00     | 0,00      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      |
| Итого       | 3     | 171,922     | 0,000       | 3919,940  | 3622,760  | 0,000    | 297,180  | 4052,060  | 3659,460  | 0,000     | 392,600   | 86,69     | 45,83     | 45,81     | 40,86     | 5,418          | 5,003          | 672,00    | 0,00      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      |
| На 23.02.21 | 3     | 1011,101    | 42,688      | 23584,970 | 21214,890 | 745,990  | 2370,080 | 24362,260 | 21432,080 | 759,650   | 2930,180  | 99,97     | 49,71     | 49,70     | 50,26     | 5,440          | 5,020          | 5134,00   | 2,00      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      |
| На 22.03.21 | 3     | 1183,023    | 42,688      | 27504,910 | 24837,650 | 745,990  | 2667,260 | 28414,320 | 25091,540 | 759,650   | 3322,780  | 69,75     | 41,35     | 41,34     | 28,40     | 5,400          | 4,990          | 5806,00   | 2,00      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      | ---      |

Ответственный за учет \_\_\_\_\_

Отчет принят " \_\_ " \_\_\_\_\_ 20 \_\_ г. \_\_\_\_\_ / \_\_\_\_\_ /

Тепловой ввод 2. Схема 9

Активная база данных: 1 Потребитель: Саянская 3, узел № 2  
Поставщик:

| Дата        | Схема | V1,<br>м3 | V2,<br>м3 | dV,<br>м3 | ВНР,<br>ч | ВОС,<br>ч | НС<br>V1 | НС<br>V2 |
|-------------|-------|-----------|-----------|-----------|-----------|-----------|----------|----------|
| 23.02.21    | 9     | 43,200    | 26,980    | 16,220    | 24,00     | 0,00      | 0        | 0        |
| 24.02.21    | 9     | 38,160    | 26,600    | 11,560    | 24,00     | 0,00      | 0        | 0        |
| 25.02.21    | 9     | 40,250    | 28,030    | 12,220    | 24,00     | 0,00      | 0        | 0        |
| 26.02.21    | 9     | 39,520    | 28,560    | 10,960    | 24,00     | 0,00      | 0        | 0        |
| 27.02.21    | 9     | 40,640    | 28,180    | 12,460    | 24,00     | 0,00      | 0        | 0        |
| 28.02.21    | 9     | 42,730    | 27,490    | 15,240    | 24,00     | 0,00      | 0        | 0        |
| 01.03.21    | 9     | 40,840    | 28,150    | 12,690    | 24,00     | 0,00      | 0        | 0        |
| 02.03.21    | 9     | 32,060    | 19,280    | 12,780    | 24,00     | 0,00      | 0        | 0        |
| 03.03.21    | 9     | 20,590    | 6,540     | 14,050    | 24,00     | 0,00      | 0        | 0        |
| 04.03.21    | 9     | 28,110    | 14,270    | 13,840    | 24,00     | 0,00      | 0        | 0        |
| 05.03.21    | 9     | 40,850    | 27,590    | 13,260    | 24,00     | 0,00      | 0        | 0        |
| 06.03.21    | 9     | 41,980    | 26,710    | 15,270    | 24,00     | 0,00      | 0        | 0        |
| 07.03.21    | 9     | 43,220    | 26,160    | 17,060    | 24,00     | 0,00      | 0        | 0        |
| 08.03.21    | 9     | 43,160    | 26,290    | 16,870    | 24,00     | 0,00      | 0        | 0        |
| 09.03.21    | 9     | 41,970    | 26,790    | 15,180    | 24,00     | 0,00      | 0        | 0        |
| 10.03.21    | 9     | 41,960    | 28,220    | 13,740    | 24,00     | 0,00      | 0        | 0        |
| 11.03.21    | 9     | 42,320    | 26,890    | 15,430    | 24,00     | 0,00      | 0        | 0        |
| 12.03.21    | 9     | 41,060    | 27,450    | 13,610    | 24,00     | 0,00      | 0        | 0        |
| 13.03.21    | 9     | 41,790    | 27,340    | 14,450    | 24,00     | 0,00      | 0        | 0        |
| 14.03.21    | 9     | 41,850    | 27,510    | 14,340    | 24,00     | 0,00      | 0        | 0        |
| 15.03.21    | 9     | 40,370    | 28,410    | 11,960    | 24,00     | 0,00      | 0        | 0        |
| 16.03.21    | 9     | 41,560    | 27,980    | 13,580    | 24,00     | 0,00      | 0        | 0        |
| 17.03.21    | 9     | 41,810    | 27,420    | 14,390    | 24,00     | 0,00      | 0        | 0        |
| 18.03.21    | 9     | 41,090    | 27,830    | 13,260    | 24,00     | 0,00      | 0        | 0        |
| 19.03.21    | 9     | 41,400    | 27,490    | 13,910    | 24,00     | 0,00      | 0        | 0        |
| 20.03.21    | 9     | 42,600    | 26,770    | 15,830    | 24,00     | 0,00      | 0        | 0        |
| 21.03.21    | 9     | 43,970    | 26,340    | 17,630    | 24,00     | 0,00      | 0        | 0        |
| 22.03.21    | 9     | 41,630    | 27,190    | 14,440    | 24,00     | 0,00      | 0        | 0        |
| Среднее     | 9     | 40,025    | 25,874    | 14,151    | 24,00     | 0,00      | ---      | ---      |
| Итого       | 9     | 1120,690  | 724,460   | 396,230   | 672,00    | 0,00      | ---      | ---      |
| На 23.02.21 | 9     | 7716,650  | 4067,550  | 3649,100  | 5136,00   | 0,00      | ---      | ---      |
| На 22.03.21 | 9     | 8837,340  | 4792,010  | 4045,330  | 5808,00   | 0,00      | ---      | ---      |

Ответственный за учет \_\_\_\_\_

Отчет принят " \_\_ " \_\_\_\_\_ 20\_\_ г. \_\_\_\_\_ / \_\_\_\_\_ /

## Принятые обозначения

### Измеряемые параметры

**Qo** - тепловая энергия полная, Гкал (ГДж, MWh)

**Qt** - тепловая энергия в трубопроводе 3, соответствующая Mt, Гкал (ГДж, MWh)

**Mi** - масса воды в i-ом трубопроводе, т

**Mt** - масса воды, отобранной из системы (разность значений M1-M2), т

**Gi** - объемный расход в i-ом трубопроводе, м³/ч

**ti** - температура теплоносителя в i-ом трубопроводе, °C

**dt** - разность температур теплоносителя, °C

**Pi** - давление теплоносителя в i-ом трубопроводе, кгс/см² (МПа, bar)

**tw** - температура воздуха, °C

**twx** - температура холодной воды, °C

**ВНР** - время нормальной работы, ч

**ВОС** - время отсутствия счета, ч