

**ANALISI DI REDDITIVITA' FINANZIARIA ESCO**

Scenario: SCN-1

Data aggiornamento: 09/02/2018

Tabella 9.7 - Parametri finanziari dell'analisi di redditività dello SCN1

**PARAMETRI FINANZIARI**

|  |  |          |
|--|--|----------|
| Anni Costruzione                                     | n <sub>i</sub>                                   | 1        |
| Anni Gestione Servizio                               | n <sub>s</sub>                                   | 14       |
| Anni Concessione                                     | n  | 15       |
| Anno inizio Concessione                              | n <sub>0</sub>                                   | 2020     |
| Anni dell'ammortamento                               | n <sub>A</sub>                                   | 10       |
| Saggio Cassa Deposito e Prestiti                     | k <sub>CDP</sub>                                 | 2,00%    |
| Costo Capitale Azienda                               | WACC   | 4,00%    |
| k <sub>progetto</sub> = Max(WACC; k <sub>CDP</sub> ) | k <sub>progetto</sub>                            | 4,00%    |
| Inflazione ISTAT                                     | f  | 0,50%    |
| deriva dell'inflazione                               | f'   | 0,70%    |
| % interessi debito                                   | k <sub>D</sub>                                   | 3,82%    |
| % interessi equity                                   | k <sub>E</sub>                                   | 9,00%    |
| Aliquota IRES  | IRES   | 24,0%    |
| Aliquota IRAP  | IRAP   | 3,9%     |
| Aliquota fiscale                                     | τ  | 27,90%   |
| Anni debito (finanziamento)                          | n <sub>D</sub>                                   | 13       |
| Anni Equity  | n <sub>E</sub>                                   | 14       |
| Costi d'Investimento diretti, IVA incl.              | I <sub>0</sub>                                   | € 11.235 |
| Oneri Finanziari (costi indiretti)                   | %Of  | 3,00%    |
| Costi d'Investimento indiretti, IVA incl.            | Of   | € 337    |
| Costi d'Investimento (diretti+indiretti), IVA incl.  | CAPEX  | € 11.572 |
| %CAPEX a Debito                                      | D  | 80,0%    |
| %CAPEX a Equity                                      | E  | 20,00%   |
| Debito   | I <sub>D</sub>                                   | € 9.258  |
| Equity   | I <sub>E</sub>                                   | € 2.314  |
| Fattore di annualità Debito                          | FA <sub>D</sub>                                  | 10,24    |
| Rata annua debito                                    | q <sub>D</sub>                                   | € 904    |
| Costo finanziamento, (D+INT <sub>D</sub> )           | q <sub>D</sub> *n <sub>D</sub>                   | € 11.758 |
| Costi per interessi debito, INT <sub>D</sub>         | INT <sub>D</sub> =q <sub>D</sub> *n <sub>D</sub> | € 2.501  |

$$WACC = K_d \times \frac{D}{D+E} \times (1-\tau) + K_e \times \frac{E}{D+E}$$

| 2   | 19        | 20        | 21      | 22        | 23              | 24              | 25        | 26        | 27      | 28       | 29        | 30  |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
|---|-----------|-----------|---------|-----------|-----------------|-----------------|-----------|-----------|---------|----------|-----------|-----|------------|-----------|------|---------|-----------|---------------|--|----------|-----------|------|---------|-----------|--------|------|------|---------|------|-----------------|-----------------|---------|------|------|---------|------|
| <table border="1"> <thead> <tr> <th>TIR &lt; WACC</th><th>TRS, anni</th><th>WACC</th><th>VAN &gt; 0</th><th>TRA, anni</th><th colspan="2">FINANZIAMENTO</th><th>TIR &gt; ke</th><th>TRS, anni</th><th>WACC</th><th>VAN &gt; 0</th><th>TRA, anni</th> </tr> <tr> <th>13,39%</th><th>5,15</th><th>4,0%</th><th>€ 4.065</th><th>6,53</th><th>I<sub>PA</sub></th><th>q<sub>PA</sub></th><th>166,48%</th><th>#N/D</th><th>4,0%</th><th>€ 4.291</th><th>#N/D</th> </tr> </thead> </table> |           |           |         |           |                 |                 |           |           |         |          |           |     | TIR < WACC | TRS, anni | WACC | VAN > 0 | TRA, anni | FINANZIAMENTO |  | TIR > ke | TRS, anni | WACC | VAN > 0 | TRA, anni | 13,39% | 5,15 | 4,0% | € 4.065 | 6,53 | I <sub>PA</sub> | q <sub>PA</sub> | 166,48% | #N/D | 4,0% | € 4.291 | #N/D |
| TIR < WACC  | TRS, anni | WACC      | VAN > 0 | TRA, anni | FINANZIAMENTO   |                 | TIR > ke  | TRS, anni | WACC    | VAN > 0  | TRA, anni |     |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
| 13,39%  | 5,15      | 4,0%      | € 4.065 | 6,53      | I <sub>PA</sub> | q <sub>PA</sub> | 166,48%   | #N/D      | 4,0%    | € 4.291  | #N/D      |     |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
| 2020  | -€ 11.255 | -€ 11.255 | 1,000   | -€ 11.255 | -€ 11.255       | € 9.258         | € 0       | -€ 1.998  | 1,000   | -€ 1.998 | -€ 1.998  |     |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
| 2021  | € 4.693   | -€ 6.563  | 0,962   | € 4.512   | -€ 6.743        | € 0             | -€ 904    | € 3.788   | € 1.791 | 0,962    | € 3.643   |     |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
| 2022  | € 5.143   | -€ 1.420  | 0,925   | € 4.755   | -€ 1.989        | € 0             | -€ 904    | € 4.238   | € 6.029 | 0,925    | € 3.918   |     |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
| 2023  | € 656     | -€ 764    | 0,889   | € 583     | -€ 1.405        | € 0             | -€ 904    | -€ 248    | € 5.780 | 0,889    | -€ 221    |     |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
| 2024  | € 664     | -€ 99     | 0,855   | € 568     | -€ 837          | € 0             | -€ 904    | -€ 240    | € 5.540 | 0,855    | -€ 205    |     |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
| 2025  | € 672     | € 573     | 0,822   | € 553     | -€ 285          | € 0             | -€ 904    | -€ 232    | € 5.308 | 0,822    | -€ 191    |     |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
| 2026  | € 680     | € 1.253   | 0,790   | € 538     | € 253           | € 0             | -€ 904    | -€ 224    | € 5.084 | 0,790    | -€ 177    |     |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
| 2027  | € 689     | € 1.942   | 0,760   | € 523     | € 776           | € 0             | -€ 904    | -€ 216    | € 4.868 | 0,760    | -€ 164    |     |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
| 2028  | € 697     | € 2.638   | 0,731   | € 509     | € 1.285         | € 0             | -€ 904    | -€ 208    | € 4.660 | 0,731    | -€ 152    |     |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
| 2029  | € 705     | € 3.344   | 0,703   | € 495     | € 1.781         | € 0             | -€ 904    | -€ 199    | € 4.461 | 0,703    | -€ 140    |     |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
| 2030  | € 714     | € 4.057   | 0,676   | € 482     | € 2.263         | € 0             | -€ 904    | -€ 191    | € 4.270 | 0,676    | -€ 129    |     |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
| 2031  | € 722     | € 4.780   | 0,650   | € 469     | € 2.732         | € 0             | -€ 904    | -€ 182    | € 4.088 | 0,650    | -€ 118    |     |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
| 2032  | € 731     | € 5.511   | 0,625   | € 457     | € 3.189         | € 0             | -€ 904    | -€ 174    | € 3.914 | 0,625    | -€ 108    |     |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
| 2033  | € 740     | € 6.250   | 0,601   | € 444     | € 3.633         | € 0             | -€ 904    | -€ 165    | € 3.750 | 0,601    | -€ 99     |     |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
| 2034  | € 749     | € 6.999   | 0,577   | € 432     | € 4.065         | € 0             | € 0       | € 749     | € 4.498 | 0,577    | € 432     |     |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
|   | € 6.999   | n/a       | n/a     | € 4.065   | n/a             | € 9.258         | -€ 11.758 | € 4.498   | n/a     | n/a      | € 4.291   | n/a |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |
|   | € 467     | n/a       | 8,71    | n/a       | n/a             | n/a             | n/a       | € 300     | n/a     | 14,31    | n/a       | n/a |            |           |      |         |           |               |  |          |           |      |         |           |        |      |      |         |      |                 |                 |         |      |      |         |      |

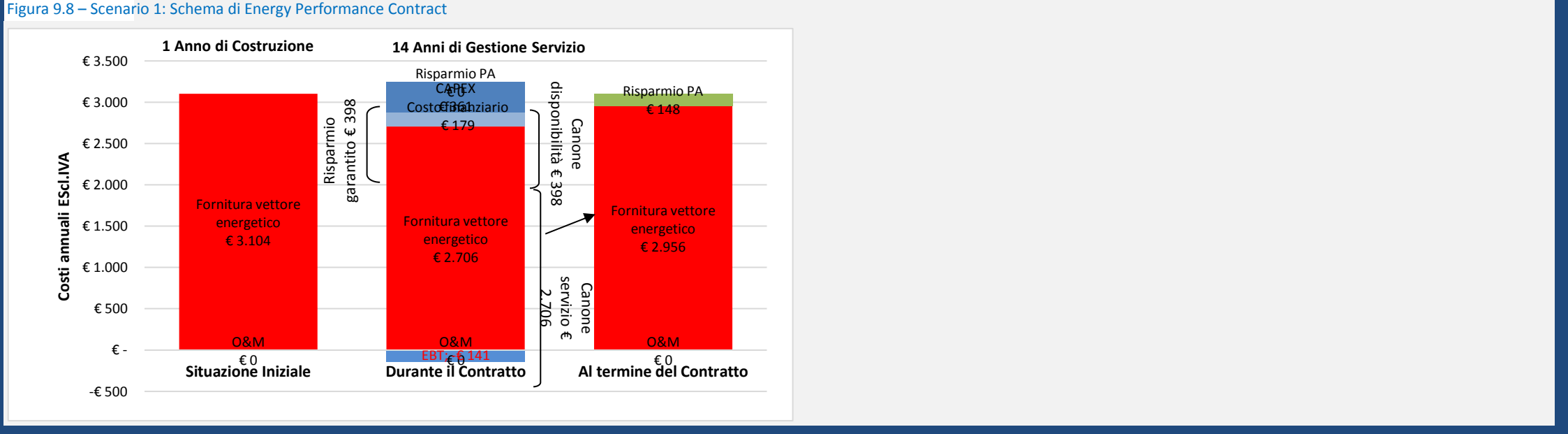
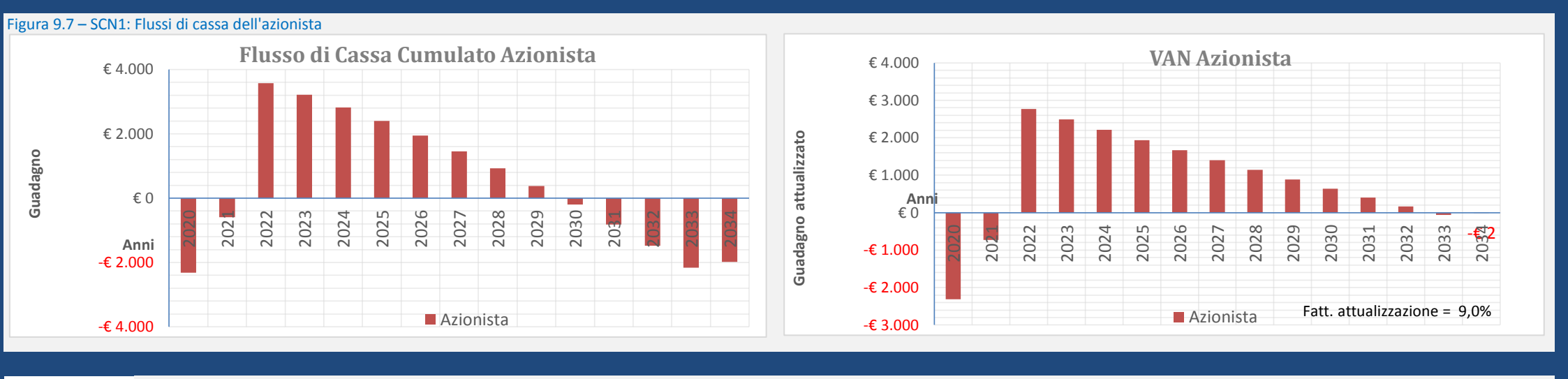
**PROGETTO PA**

| TIR < WACC | TRS, anni | WACC    | VAN > 0 | TRA, anni | FINANZIAMENTO   |                 | TIR > ke | TRS, anni | WACC    | VAN > 0 | TRA, anni |
|------------|-----------|---------|---------|-----------|-----------------|-----------------|----------|-----------|---------|---------|-----------|
| #NUM1      | #N/D      | 4,0%    | € 3.860 | #N/D      | I <sub>PA</sub> | q <sub>PA</sub> | #NUM1    | #N/D      | 4,0%    | € 3.860 | #N/D      |
| 2020       | € 386     | € 386   | 1,000   | € 386     | € 386           | € 0             | € 0      | € 386     | € 386   | 1,000   | € 386     |
| 2021       | € 46      | € 432   | 0,962   | € 44      | € 430           | € 0             | € 0      | € 46      | € 432   | 0,962   | € 44      |
| 2022       | € 92      | € 524   | 0,925   | € 85      | € 515           | € 0             | € 0      | € 92      | € 524   | 0,925   | € 85      |
| 2023       | € 138     | € 662   | 0,889   | € 123     | € 638           | € 0             | € 0      | € 138     | € 662   | 0,889   | € 123     |
| 2024       | € 186     | € 848   | 0,855   | € 159     | € 797           | € 0             | € 0      | € 186     | € 848   | 0,855   | € 159     |
| 2025       | € 233     | € 1.081 | 0,822   | € 192     | € 988           | € 0             | € 0      | € 233     | € 1.081 | 0,822   | € 192     |
| 2026       | € 282     | € 1.363 | 0,790   | € 223     | € 1.211         | € 0             | € 0      | € 282     | € 1.363 | 0,790   | € 223     |
| 2027       | € 331     | € 1.694 | 0,760   | € 251     | € 1.462         | € 0             | € 0      | € 331     | € 1.694 | 0,760   | € 251     |
| 2028       | € 380     | € 2.074 | 0,731   | € 278     | € 1.740         | € 0             | € 0      | € 380     | € 2.074 | 0,731   | € 278     |
| 2029       | € 430     | € 2.504 | 0,703   | € 302     | € 2.043         | € 0             | € 0      | € 430     | € 2.504 | 0,703   | € 302     |
| 2030       | € 481     | € 2.986 | 0,676   | € 325     | € 2.368         | € 0             | € 0      | € 481     | € 2.986 | 0,676   | € 325     |
| 2031       | € 533     | € 3.518 | 0,650   | € 346     | € 2.714         | € 0             | € 0      | € 533     | € 3.518 | 0,650   | € 346     |
| 2032       | € 585     | € 4.103 | 0,625   | € 365     | € 3.079         | € 0             | € 0      | € 585     | € 4.103 | 0,625   | € 365     |
| 2033       | € 637     | € 4.740 | 0,601   | € 383     | € 3.462         | € 0             | € 0      | € 637     | € 4.740 | 0,601   | € 383     |
| 2034       | € 690     | € 5.430 | 0,577   | € 399     | € 3.860         | € 0             | € 0      | € 690     | € 5.430 | 0,577   | € 399     |
|            | € 5.430   | n/a     | n/a     | € 3.860   | n/a             | € 0             | € 0      | € 5.430   | n/a     | n/a     | € 3.860   |
|            | € 362     | n/a     | 10,66   | n/a       | n/a             | n/a             | n/a      | € 362     | n/a     | 10,66   | n/a       |

**PROGETTO ESCO PRE-IMPOSTE**

| TIR < WACC | TRS, anni | WACC      | VAN < 0  | TRA, anni | FINANZIAMENTO  |                | TIR > ke  | TRS, anni | WACC     | VAN < 0  | TRA, anni |     |
|------------|-----------|-----------|----------|-----------|----------------|----------------|-----------|-----------|----------|----------|-----------|-----|
| 1,20%      | 12,52     | 4,0%      | -€ 1.047 | 24,92     | I <sub>0</sub> | q <sub>0</sub> | 9,02%     | 10,98     | 9,0%     | -€ 2     | 12,97     |     |
| 2020       | -€ 11.572 | -€ 11.572 | 1,000    | -€ 11.572 | -€ 11.572      | € 0            | -€ 2.314  | -€ 2.314  | 1,000    | -€ 2.314 | -€ 2.314  |     |
| 2021       | € 2.629   | -€ 8.943  | 0,962    | € 2.528   | -€ 9.044       | € 0            | -€ 904    | € 1.725   | -€ 589   | 0,917    | € 1.583   |     |
| 2022       | € 5.067   | -€ 3.875  | 0,925    | € 4.685   | -€ 4.359       | € 0            | -€ 904    | € 4.163   | € 3.573  | 0,842    | € 3.504   |     |
| 2023       | € 543     | -€ 3.332  | 0,889    | € 483     | -€ 3.876       | € 0            | -€ 904    | -€ 362    | € 3.212  | 0,772    | -€ 279    |     |
| 2024       | € 512     | -€ 2.820  | 0,855    | € 438     | -€ 3.438       | € 0            | -€ 904    | -€ 392    | € 2.820  | 0,708    | -€ 278    |     |
| 2025       | € 481     | -€ 2.339  | 0,822    | € 395     | -€ 3.043       | € 0            | -€ 904    | -€ 424    | € 2.396  | 0,650    | -€ 275    |     |
| 2026       | € 449     | -€ 1.890  | 0,790    | € 355     | -€ 2.688       | € 0            | -€ 904    | -€ 455    | € 1.941  | 0,596    | -€ 271    |     |
| 2027       | € 417     | -€ 1.473  | 0,760    | € 317     | -€ 2.371       | € 0            | -€ 904    | -€ 487    | € 1.454  | 0,547    | -€ 266    |     |
| 2028       | € 385     | -€ 1.087  | 0,731    | € 281     | -€ 2.089       | € 0            | -€ 904    | -€ 519    | € 934    | 0,502    | -€ 261    |     |
| 2029       | € 352     | -€ 735    | 0,703    | € 248     | -€ 1.842       | € 0            | -€ 904    | -€ 552    | € 382    | 0,460    | -€ 254    |     |
| 2030       | € 319     | -€ 416    | 0,676    | € 216     | -€ 1.626       | € 0            | -€ 904    | -€ 585    | -€ 203   | 0,422    | -€ 247    |     |
| 2031       | € 286     | -€ 130    | 0,650    | € 186     | -€ 1.440       | € 0            | -€ 904    | -€ 619    | -€ 822   | 0,388    | -€ 240    |     |
| 2032       | € 252     | € 122     | 0,625    | € 157     | -€ 1.283       | € 0            | -€ 904    | -€ 653    | -€ 1.475 | 0,356    | -€ 232    |     |
| 2033       | € 217     | € 339     | 0,601    | € 131     | -€ 1.153       | € 0            | -€ 904    | -€ 687    | -€ 2.162 | 0,326    | -€ 224    |     |
| 2034       | € 183     | € 522     | 0,577    | € 106     | -€ 1.047       | € 0            | € 0       | € 183     | -€ 1.979 | 0,299    | -€ 55     |     |
|            | € 522     | n/a       | n/a      | -€ 1.047  | n/a            | € 9.258        | -€ 11.758 | -€ 1.979  | n/a      | n/a      | -€ 2      | n/a |
|            | € 35      | n/a       | -30,10   | n/a       | n/a            | n/a            | n/a       | -€ 132    | n/a      | 0,01     | n/a       | n/a |

|                         |                   |          |      |
|-------------------------|-------------------|----------|------|
| € 2.501                 | -€ 1.979          | -€ 1.918 | € 61 |
| INTD = C <sub>FTT</sub> | C <sub>ESCO</sub> | EBT      | -17% |



|                          |         |     |        |       |         |
|--------------------------|---------|-----|--------|-------|---------|
| Situazione Iniziale      | € 3.104 | € 0 | € 0    | € 0   | € 3.104 |
| Durante il Contratto     | € 2.706 | € 0 | -€ 141 | € 179 | € 3.104 |
| Al termine del Contratto | € 2.956 | € 0 | € 0    | € 0   | € 3.104 |

**Analisi di Sostenibilità ESCO**

| CALCOLO IMPOSTE | Post-imposte |                  |             |          | Pre-imposte |        |                    |                    | 0,41     |                |
|-----------------|--------------|------------------|-------------|----------|-------------|--------|--------------------|--------------------|----------|----------------|
|                 | MON (EBIT)   | INT <sub>D</sub> | UTILE (EBT) | IMPOSTE  | FCFO        | DSCR   | FCFOAR pre imposte | CAPIT <sub>D</sub> |          | Debito Residuo |
| 2020            | € 0          | € 0              | € 0         | € 0      | -€ 11.572   |        | -€ 1.047           | € 0                | € 9.258  |                |
| 2021            | -€ 949       | -€ 345           | -€ 344      | -€ 689   | € 2.643     | 2,92   | € 10.525           | -€ 561             | € 9.258  | 1,14           |
| 2022            | -€ 949       | € 4.119          | -€ 322      | € 3.797  | € 3.995     | 4,42   | € 7.997            | -€ 583             | € 8.697  | 0,92           |
| 2023            | -€ 949       | -€ 406           | -€ 299      | -€ 705   | € 559       | 0,62   | € 3.312            | -€ 605             | € 8.114  | 0,41           |
| 2024            | -€ 949       | -€ 436           | -€ 276      | -€ 712   | € 529       | 0,59   | € 2.829            | -€ 629             | € 7.509  | 0,38           |
| 2025            | -€ 949       | -€ 468           | -€ 251      | -€ 719   | € 499       | 0,55   | € 2.391            | -€ 653             | € 6.880  | 0,35           |
| 2026            | -€ 949       | -€ 499           | -€ 226      | -€ 725   | € 469       | 0,52   | € 1.996            | -€ 679             | € 6.227  | 0,32           |
| 2027            | -€ 949       | -€ 531           | -€ 200      | -€ 731   | € 438       | 0,48   | € 1.641            | -€ 705             | € 5.548  | 0,30           |
| 2028            | -€ 949       | -€ 563           | -€ 172      | -€ 736   | € 407       | 0,45   | € 1.324            | -€ 732             | € 4.843  | 0,27           |
| 2029            | -€ 949       | -€ 596           | -€ 144      | -€ 740   | € 376       | 0,42   | € 1.042            | -€ 761             | € 4.111  | 0,25           |
| 2030            | -€ 949       | -€ 629           | -€ 114      | -€ 743   | € 344       | 0,38   | € 795              | -€ 790             | € 3.350  | 0,24           |
| 2031            | € 0          | € 286            | -€ 83       | € 202    | € 226       | 0,25   | € 579              | -€ 821             | € 2.560  | 0,23           |
| 2032            | € 0          | € 252            | -€ 52       | € 200    | € 194       | 0,21   | € 393              | -€ 853             | € 1.739  | 0,23           |
| 2033            | € 0          | € 217            | -€ 18       | € 199    | € 161       | 0,18   | € 236              | -€ 886             | € 886    | 0,27           |
| 2034            | € 0          | € 183            | € 0         | € 183    | € 132       |        | € 106              | € 0                | € 0      |                |
|                 | -€ 9.485     | € 583            | -€ 2.501    | -€ 1.918 | -€ 1.122    | -€ 600 | n/a                | n/a                | -€ 9.258 | n/a            |
|                 | -€ 632       | € 39             | -€ 167      | -€ 128   | -€ 75       | -€ 40  | € 2.274            | -€ 617             | n/a      | n/a            |

|                         |                   |          |      |
|-------------------------|-------------------|----------|------|
| € 2.501                 | -€ 1.979          | -€ 1.918 | € 61 |
| INTD = C <sub>FTT</sub> | C <sub>ESCO</sub> | EBT      | -17% |