|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Cash Flow Description | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Total |
| Development cost: | 34000 | 0 | 0 | 0 | 0 |  |
| Operation & maintenance cost: | 0 | 2000 | 2400 | 2800 | 3200 |  |
| Discount factors for 4% | 1.0 | 0.96 | 0.92 | 0.89 | 0.85 |  |
| Present value of annual cost: | 34000 | 1920 | 2208 | 2492 | 2720 | 43340 |
| Total present value of lifetime costs: |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Benefits derived from new system operation: | 0 | 15000 | 17500 | 20000 | 22500 |  |
| Discount factors for 4%: | 1.0 | 0.96 | 0.92 | 0.89 | 0.85 |  |
| Present value of annual benefits: | 0 | 14400 | 16100 | 17800 | 19125 |  |
| Total present value of lifetime costs benefits: |  |  |  |  |  | 67425 |
| NET PRESENT VALUE OF THIS ALTERNATIVE: |  |  |  |  |  | 24085 |

Lifetime ROI = (67425-43340)/43340

= 0.556 X 100

= 55.6%

Yearly ROI = 55.6/4

= 13.9%