to feed the pumping stations of the hydro power plant. In this case, the financial return would be obtained from the savings side in the purchase of electricity which has substantially higher tariffs than the feed.in-tariffs considered.

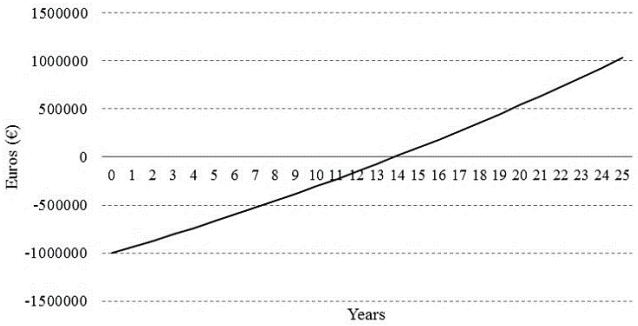

Fig.8. Amortization results over the project lifetime.

6. Conclusion

Southern European countries have interesting potential for installing FSPV, taking advantage of the solar resource and the large number of dams reservoirs. It proves to be an interesting solution, in the search for increased electricity production based on renewables, helping to meet the European goals imposed by the roadmap for carbon neutrality. Besides that, there are other advantages that this type of projects present, one of the biggest advantages is the fact that FSPV facilities do not require valuable land space inland. Another advantage is the increased efficiency in energy conversion. The water evaporation reduction is another interesting advantage too. While there are numerous advantages to floating PV, there are a main disadvantage to this technology: the costs. These plants require additional costs than more traditional types of PV installations. The case study carried out, demonstrate that the payback period to amortize the investment rounds 14 years, which remains very high for renewable investments. However, the results of the *NPV* and *IRR* demonstrate the potential that these systems can bring, bearing in mind that the trend is towards a reduction in investment costs, resulting from a reduction in the technology costs. Thus, while the investment costs do not decrease, its use is more suitable for supplying local and auxiliary systems, such as pumping stations, allowing a significant reduction in the energy bill.

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