EUROPEAN COMMISSION
DIRECTORATE-GENERAL
REGIONAL AND URBAN POLICY
Better Implementation, Closure and Programme Implementation III
The Director

Brussels,
REGIO.DDG.F1/GX

VIA SFC2014

Subject: The Commission's observations on the major project 2018GR16CFMP003 "Integrated solid waste management of the Peloponnese Region with Public Private Partnership" in Greece

Dear Ms. Papasiopi,
Dear Mr. Psaraki,

On 22 April 2020, in accordance with Article 102.2 of Regulation (EC) N°1303/2013, Greece submitted to the European Commission via SFC2014 the application and relevant information on the major project "Integrated solid waste management of the Peloponnese Region with PPP" under the Priority Axis PA: 14 – Preservation and Protection of the Environment - Promotion of Resource Efficiency (CF) of the OP "Transport Infrastructures, Environment & Sustainable Development".

Following the internal consultations within the Commission services on the information provided in the application form for the above-mentioned major project and its annexes, we would like to request additional clarifications and a revision of the project application in relation to the project costs, the options analysis, the demand and the financial analysis, the economic analysis, the risk analysis and the Climate change adaptation and mitigation. In addition, Commission services identified a number of issues concerning compliance with the EU law, in relation to the environmental documentation and the State Aid. All important issues and concerns raised are presented in more detail in the Annex to this letter.

As foreseen in Article 102(2) of Regulation (EU) N° 1303/2013, the deadline for the adoption of the major project is hereby interrupted until additional clarifications are submitted to the Commission within two months from the receipt of this letter. Should your clarifications be insufficient or in case of no reply, the Commission may proceed with the Commission decision refusing the financial contribution to this major project. Should you need more time to respond,

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you can withdraw the major project application and resubmit once the Commission observations are sufficiently addressed. Let me recall that JASPERS advisory services are available to assist the Greek authorities not only in improving this major project documentation, but in preparing sufficient and quality project pipeline also for the next programming period, including at regional level.

Yours sincerely,

(e-signed)

Erich Unterwurzacher

Encl.: Annex – Commission observations on the major project documentation (with appendix)

Copy: Mr Dimitrios Skalkos (Secretary General for NSRF, Ministry of Development and Investments)
Ms Niki Dandolou (Special Secretary in charge of thematic programmes, Ministry of Development and Investments)
Mr Georgios Logothetis (Special Coordination Service, Ministry of Development and Investments)
Mr Antonios Psarakis (Head of Managing Authority OP Peloponnese)
Mr Willebrord Sluijters (REGIO G.3)
Mr Witold Willak, Mr Georgios Xevgenis (REGIO F.1)

ANNEX

Observations of the Commission services

In line with the points related to compliance with the Commission's Regulations, indicated below, please provide additional clarifications and documentation on the project application where applicable.

1. **Project cost**

The appropriateness of the overall cost to achieve the expected objectives and in terms of unit costs of the investment and operational costs of several project components cannot be confirmed:

- The investment cost of the 3rd MBT plant (EUR 22.1 million) is substantially higher than can be expected for treating 30,000 ton waste per year. The unit cost of the investment is 737 EUR/ton treated, compared to e.g. ca. 323-343 EUR/ton in recent EU co-funded projects in Croatia and Bulgaria. The relatively small quantity of waste treated in the 3rd MBT plant, as compared to its capacity (apparently ca. 60,000 ton/year) drives the unit investment cost up.
- The project documentation mentions biogas-fired electricity and heat generation units at each waste treatment site, but their costs have apparently not been included in the investment costs. Their operation and maintenance costs are also unclear (and possibly missing).
- The documentation is not clear on the capacity of landfills included in the project cost, which doesn´t allow for determining the appropriateness of the unit costs. The documentation specifies that the overall capacity of the landfills will be sufficient for 30 years operation. Normally landfills are developed gradually, and disposal capacity required for 5-7 years of operation is constructed at a time.
- The project documentation repeatedly mentions three "transitional management units", but it is unclear what they include, and whether they are part of the project scope and project costs.
- The operation and maintenance costs have not been specified for the different investment components, and therefore their appropriateness cannot be assessed.

Please provide the missing information, justify the costs and clarify which are the correct figures.

2. **Options analysis**

The options analyses does not comply with the requirements in Annex III, chapter 2.1.4(3) of the Commission Implementing Regulation 2015/207:

- The documentation is missing an analysis of the institutional options considered, and justification for the selected option (PPP).The documentation does not include rationale for the selection of the procurement method, including through a 'value for money' analysis using reasonable public sector comparators, as required in Section D.2.2 of the major project application.
- The project documentation does not provide detailed technical/financial/economic calculations with explanations for the comparison of analysed strategic options (centralised and sub options vs decentralised). For this reason, it cannot be confirmed that the most optimal strategic option was chosen.
- The Beneficiary uses an over-optimistic assumption for the recyclable waste separation and preparation for re-use and recycling from the mixed municipal waste flow. It

assumes that ca. 15% of the overall incoming waste flow will be prepared for re-use and recycling (paper, plastic, glass, metals). Lower recycling rates are observed in the MBT's in operation in Europe. Large part of the materials in mixed waste are contaminated and cannot therefore be recycled in practice.

- The proposed MBT plants will be generating gas that will be utilised for electricity and heat generation. The feasibility study does not include data on the gas production and electric/thermal efficiency of proposed generation units. The importance for the MBT plants to be flexible in treating different waste flows is noted in the feasibility study, however there is no information on how incoming waste flows will change over the project reference period in each management area.
- Waste transfer stations, if duly justified by the option analysis, could be considered as acceptable; however, it is not clear how much waste would be transferred via those stations.
- The non-hazardous waste landfills, compliant with the Landfill Directive requirements, will ensure that waste in the region is disposed in a controlled way. This does not guarantee that other requirements of the Landfill Directive will be met, i.e. that by 2035 the amount of municipal waste landfilled will be reduced to 10 % of the total amount of municipal waste generated (by weight).The project documentation does not confirm that all proposed infrastructures will be compliant with the best available techniques (BAT) conclusions for waste treatment (Commission decision 2018/1147).

Please provide the missing information, complete the figures as appropriate and give the necessary justifications.

3. CBA and risk assessment

Demand analysis

The project documentation does not include sufficient information to determine, whether the project's demand has been correctly identified:

- According to the project documentation, the forecasted number of population in the project area is based on the assumptions in the Regional Waste Management Plan. However, the RWMP foresees a decrease of population by ca. 0.55%/year until 2025, while the demand analysis for the project assumes an increase by ca. 0.6%/year throughout the reference period (base year for both forecasts is 2011). This suggests that the generated municipal waste quantities in the region are overestimated for the project's reference period.
- The project documentation does not include any description and calculations of future waste management targets in the region beyond the year 2020. Therefore demand for the future waste treatment cannot be verified against these targets.
- The project demand does not take into account the future waste management requirements and targets set in Waste Framework Directive (2018/851) and Landfill Directive (2018/850) (Circular Economy Package).

Financial analysis

The financial analysis does not meet the requirements of Commission Implementing Regulation (EU) 207/2015 and the European Commission's *Guide to Cost-Benefit Analysis of Investment Projects* (2014, "the CBA Guide"), therefore presented results do not reflect the real financial performance of the project.

- The project is implemented as Public Private Partnership. The CBA Methodology (A.2.2.3.2) states that a consolidated analysis, covering both the owner and the operator, should first be carried out in order to calculate the overall project profitability. The

consolidated analysis of the project has not been carried out to present the financial performance of the project.

- In the major project application, the financial analysis is done from the perspective of the Peloponnese Region (SGEI provider). On the cost side, it takes into account the total investment costs, availability payments and management cost incurred by the Peloponnese Region, and on the revenues side the fees paid by users. As a consequence, part of the investment cost is double counted, as it is included both under the item "investment costs" and "availability payments". Additionally, contingencies are not excluded from the investment cost. It shall be assumed that availability payments also include financing costs and the private partner profit, which shall not be taken for the calculation of the project performance indicators. It explains why the reported FRR/C is so low (strongly negative).
- The project is implemented as Public Private Partnership. The CBA Methodology (A.2.2.3) states that the return on capital shall then be calculated separately for the private partner and public partner. The return on capital, separately, for the private partner and public partner has not been calculated.
- It is assumed that the Region of Peloponnese will contribute the amount of EUR 66,529,154.19, including EU grant, to the SPV. The amount is different than the public contribution for the Project shown in the financing plan (EUR 63,861,257). The documentation does not explain how the level of eligible costs, public contribution and EU grant was calculated. It is also not clear, whether the amount of public contribution was known at the stage of tender or/and the level of requesting grant constituted one of the private partner selection criteria.
- Due to the errors in the financial analysis, it cannot be confirmed whether the full-cost recovery and polluter pays principles are met. The availability payments and consequently tariffs apparently do not include the closure and after-care costs of landfills.
- The financial analyses applies a 33-year reference period, exceeding the maximum reference period of 30 years defined for the waste management sector in Annex I of the Commission Delegated Regulation (EU) 480/2014.
- As the financial model refers only to the project Beneficiary, the operating costs of the project and revenues are not explained in the study. The feasibility study does not provide information on the assumed quantity and price of recyclables and energy to be sold.

Economic analysis

The economic analysis does not comply with the requirements of Commission Implementing Regulation (EU) 207/2015 and the CBA Guide, in terms of both the methodology used and the results of the analysis:

- The CBA report and the application do not include sufficient description of the identified economic benefits and costs and basic assumptions related to their valuation.
- The CBA model suggests that the main economic benefit (63% of total benefits) is an increase in value of houses in the project area (EUR 26.5 million each year). There is no justification presented. The second benefit is revenue from tariffs (35%). If the charges for waste treatment could be assumed as proxy for the consumers' willingness to pay for having the waste properly managed, and therefore justified as an economic benefit for the project, there would be no further justification to the assumption on the increase in value of houses (as the increase in the value of the houses could in this case only be based on improved waste management, and these two benefits would hence be overlapping).
- On the costs side, it seems that O&M costs were double counted.
- The provided economic analysis does not provide the credible evidence that the project is economically viable. Correction of the analysis for operating costs on the costs side, and for benefits related to the increase in real estate prices on the benefits side causes the

ENPV to turn negative, ERR below the discount rate, and B/C indicator below 1, which would indicate that the project should not be implemented.

- The costs and benefits and the economic indicators presented in the Application Form are very different from the ones presented in the CBA model and should therefore be clarified.

Risk analysis

- **Lack of the financial and economic sensitivity analysis does not allow assessment of the impact on changes on variables on the financial performance indicators.** The sensitivity analysis that shall determine the critical variables or parameters of the financial analyses was not provided.
- Although qualitative risks and the allocation of risks between the PPP partners have been discussed in general terms in section E.3.3 of the AF and in chapter 8 of the feasibility study, **the qualitative risk analysis for the project does not comply with the requirements of Annex III, chapter 2.4 of the Commission Implementing Regulation 2015/207**. Although the main risks for waste management set in Table 2 in the above-mentioned annex formally were taken into account in the risk assessment, the risk assessment included in the provided documentation cannot constitute the basis for a sound risk-management strategy. The following elements are missing: a risk matrix showing each identified risk; the possible cause of failure; the link with the sensitivity analysis where applicable, the negative effects generated on the project; the ranked levels of probability of occurrence and of the severity of impact; the risk level as a combination of probability and impact. Also missing are the identification of prevention and mitigation measures; interpretation of the risk matrix including an assessment of the residual risk after the application of prevention and mitigation measures; and, if the residual risk exposure is still significant, a probabilistic risk analysis.

  In addition to the previous issue, the risks that are relevant for the project are not adequately addressed in the documentation:

  - Site availability – there is no evidence that all sites are available for project implementation. It is understood that the expropriation process has not been completed for some sites.
  - Waste stream guarantee – no details have been presented on how the quantity of waste agreed with the private partner will be ensured by the Peloponnese Region and delivered to "entry points".
  - Further delays in the project implementation - the maturity of the project is not clear – the PPP tender was announced in 2011, the winning offer was selected in 2013, the contract was signed in 2018. The financial analysis indicates that investment costs were already incurred in 2019 and 2020, but the application does not include clear description on the state of project preparation at the time of submission of the application.

  Please provide the missing information, complete the figures as appropriate and give the necessary justifications.

4. Climate change adaptation and mitigation needs and disaster resilience

The project documentation does not comply with the requirements of Regulation (EU) No 1303/2013, Article 101(f). The climate change adaptation and mitigation needs, and the disaster resilience have not been addressed in the project documentation.

The Beneficiary stated that the project contributes to the objectives of Europe 2020 strategy, namely, by reduction of methane generation and increasing use of renewable energy use

(biomass), but the documentation does not present any further information on that regard. Nor does it make any connection to the national climate change adaptation strategy.

The GHG emissions of the project are said to have been included in the CBA, though not reported in the AF. However, no calculation of the GHG emissions were identified neither in the Feasibility Study, nor in the CBA.

The initial EIA was carried out based on the requirements of the unrevised EIA Directive (2014) and did not cover the CC resilience assessment, which is appropriate (before the revised EIA Directive entered into force). The EIA was amended in 2019, however, the decision does not specify any information on the subject of climate change, neither on the mitigation, nor on the adaptation topics necessary to be incorporated in the project where the case should be.

The project documents do not prove that climate change vulnerability and risk assessment has been carried out, therefore no evidence was found whether the project would be resilient in view of climate change related hazards or not and, further on, whether it would need adaptation measures in case the project components are likely to be significantly affected.

Please provide the necessary information on this critical issue as indicated above.

5. <u>State-aid decision</u>

a) The energy use of biogas produced from the anaerobic digestion of organic streams is not part of the service of general interest and the support has been based on Article 41 of Regulation 651/2014 (the "GBER") which contains compatibility conditions for investment aid for renewable energy production. While this seems to be the relevant legal basis to the Commission, it is the responsibility of the Greek authorities to ensure that the support complies with all the compatibility conditions listed in Article 41 of the GBER and of Chapter I of the GBER.

b) It seems that the company that would construct and operate the waste management facility was selected in a tender. As far as the support to the operator of the waste management facilities (other than the biogas installation), the Greek authorities could in theory also rely on the Altmark case law depending on whether the tender was competitive and based on the costs for discharging the SGEI (and if all other ALtmark conditions were fulfilled).

   The file does not mention the Altmark case law and it is not clear whether the Altmark conditions were fulfilled. By contrast, for the SGEI part, the file refers to the conditions laid down in the Commission Decision (2012/21/EU). It is the responsibility of the Greek authorities to verify that the support complies with all the compatibility conditions of this Commission Decision, in particular the entrustment, the definition of the extent and duration of the public service obligations, the definition ex ante of the parameters of the compensation, verification that the total compensation (the support at stake in this file but also any additional support that is planned) does not exceed what is necessary for discharging service and does not exceed EUR 15 million on an annual basis. There are no indications that the conditions of the SGEI Decision would not be complied with, nevertheless there is no assessment in the file in this respect.

c) It seems that the waste management plant will treat urban solid waste from both private or commercial uses. Commercial operators are under the polluter pays principle, required to bear the costs of the commercial waste management. In the project's documentation there was no indication as to how private parties will finance the commercial waste. Nor is it indicated whether they have the possibilities to resort to private contracts to find the operator collecting and treating their waste. It is therefore unclear whether it is ensured that the support planned in the file does not relieve commercial operators from their waste management costs.

6. Environmental aspects

a) The major project application states that none of the works will take place within a protected N2000 area and therefore will have no significant effects. However, the documentation clearly identifies that one of the installations will be built in a N2000 area and that's why an ecological study has been conducted. Therefore, the major project application needs to be corrected to reflect this development.

b) As regards the EIA, the information provided regarding the public consultation, how comments have been addressed, as well as the publication of the decision is not concrete enough, and there is the need to receive more details about it.

c) In 2017, when the ex-ante conditionality on waste for Greece was considered as fulfilled (Commission's letter ref Ares (2017) 3987408 of 10/08/2017), it was required, that the following points will be included in the selection criteria of all the Greek Operational Programmes that foresaw waste management investments, and indeed this was done during the next programmes' modifications:

i. EU co-financing to all new MBTs as foreseen in the Regional Waste Management Plans (RWMP) is not justified. EU co-financing to any new MBTs will be limited only to well justified cases, ***not exceeding in capacity 50% of the generated waste in the Region****, so that the risk of overcapacity is avoided and the objectives of the waste hierarchy are fully respected. Moreover, these projects have to be constructed in a way that allows* ***transformation towards more recycling*** *later on. This shall be applicable to all non-major and major projects.*

ii. EU co-financing of 'safe' projects, i.e. projects in separate collection, recycling, educational and awareness raising campaigns and construction of composting plants should be prioritised.

iii. Separate collection of five waste streams (paper, plastic, metal, glass and bio-waste), as established by the Greek national waste management plan (NWMP) must be implemented without delay. ***This is especially important for all municipalities and Regions that foresee MBTs.*** *These municipalities are requested to establish as soon as possible a functioning separate collection scheme of the five waste streams conformant with the national WMP* ***prior to or within the implementation of the specific EU co-financed projects****.*

d) It needs to be clearly demonstrated that this project dully respects the above criteria. More specifically, the Greek authorities are kindly requested to provide more information on:

- **a.** How the generated waste is calculated, as well as how the projections for the future are estimated. These seem to go contrary to those of the Regional Waste Management Plan, where it is explained that the population in the Region is steadily shrinking over the last years, and this trend is expected to continue. Taking also into account that waste prevention should apply, the quantities of generated waste, total and per capita, should be dropping and not increasing.
- **b.** What will be the composition of waste entering the facilities? Has a proper functioning separate collection system been established in the Region, as required?
- **c.** What will be the quality of the produced compost? It is vital that this is of high quality, so that it will not end up in the landfill.
- **d.** Will part of the output materials be SRF and/or RDF? In such a case, what is the expected quality? Will there be a market for it?
- **e.** It is clear from the provided figures that the requirement that these facilities receive maximum 50% of the total generated waste of the Region has not been respected. Although there are mentions of the 2020 recycling targets, there seems to be no

consideration of the targets set in the new Circular Economy package (Waste Framework Directive (2018/851) and Landfill Directive (2018/850)), whose transposition deadline is due next month (July 2020). Therefore it is crucial that the project takes these into account as well. Therefore, the 50% quantity needs to be respected and it also needs to be explained and justified how it is expected that the requirements of the new Directives will be met.

Appendix I

Additional background information on issues raised in the Observations of the Commission services:

1. Project cost

The investment costs of the project comprise the following:
Mechanical Biological Treatment plants (Area numbers are as indicated in the application):

MBT/Area	***Waste treatment volumes ton/year***	***CAPEX EUR (excl. VAT)***	***CAPEX EUR/ton treated***
1	105,000	38,862,520	370
2	65,000	22,274,822	343
3	30,000	22,109,884	737[1]
Total	200,000	83,247,226	

The unit costs for the first and second MBT plant are within typical limits for such installations. Unit cost for the third MBT plant is substantially higher than can be expected for this type of installation.

Sanitary landfills:

Landfill/Area	***Total capacity, m^3***	***CAPEX EUR (excl. VAT)***	***CAPEX EUR/m^3 (reported)***
1	1,975,000	4,992,757	2.5
2	1,240,000	3,187,041	2.6
3	565,000	3,052,304	5.4
Total	3,780,000	11,232,102	

The documentation is not clear on the capacity of landfills that is included in the project costs, therefore it cannot be concluded whether the unit costs are reasonable. The documentation specifies that the overall capacity of landfills will be sufficient for 30 years operation. Normally landfills are developed gradually and disposal capacity required only for 5-7 years period of operation is constructed at a time. In the absence of detailed justification, the appropriateness of CAPEX values cannot be confirmed.

Transfer stations in Management Area 1:

Transfer station	***Capacity, ton/y***	***CAPEX EUR (excl. VAT)***	***EUR/ton***
1	50,000	2,600,000	52.0
2	34,000	1,560,000	45.9
Total	84,000	4,160,000	

[1] The actual capacity of the MBT no. 3 appears to be about the same as MBT no. 2 (ca. 60,000 ton/year), hence the high unit cost compared to the quantity of waste actually processed.

In the absence of detailed justification, the appropriateness of CAPEX values cannot be confirmed.

The project's total costs amount to EUR 135.08 million, including VAT. Out of the total costs, EUR 63.88 million is eligible. The difference, EUR 71.20 million will be ineligible. Eligible costs are defined as those not covered by the private partner or national private funding.

2. Options analysis

The documentation briefly discusses the strategic and technical options considered. The strategic options include:

- Centralised system:
    - Three regional centres (three new landfills and three new mechanical biological treatment plants with anaerobic digestion technology and 2 transfer stations). An alternative technical option is discussed which includes aerobic digestion in the smallest MBT plant, and anaerobic digestion technology in two bigger ones;
    - One regional centre (one waste to energy plant, landfill(s) and 6 transfer stations)
    - One regional centre (one mechanical biological treatment plant with anaerobic digestion technology, landfill(s) and 6 transfer stations).
- Decentralised system (10 MBT plants and 5 landfills).

The project documentation proposes to implement the first of the options above, an integrated centralised waste treatment system that will include the construction of three mechanical biological treatment plants, three sanitary landfills and two waste transfer stations.
The feasibility study explains that the option with one MBT plant and one regional landfill was rejected mainly because:

- Increased waste transfer costs in case of one central facility outweigh a slightly higher capital costs in case of three regional facilities;
- Carbon dioxide emissions are higher in case of one central facility due to the extensive waste shipment needs;
- One regional facility would not comply with the proximity principle.

The project documentation does not provide detailed technical/financial/economic calculations with explanations for the comparison of the analysed options. For this reason, it cannot be confirmed that the most optimal solutions were chosen. Without sufficient information available in the project documentation, it could be expected that economies of scale should allow determining a solution with lower cost and less risks of failure in operation than having 3 rather small regional centres.

The mass balances of the proposed 3 MBT plants are as follows (in ton/year):

	MBT Area 1	***MBT Area 2***	***MBT Area 3***
Incoming waste	105,000	65,000	30,000
Separated recyclables	18,900	7,930	3,660
Compost-like output	22,080	16,120	6,840
Losses (biogas production)	6,900	4,290	1.980
Bio-degradation losses	9,870	7,410	4,020
Residue	47,250	29,250	13,500

According to the EIA report, each of the above facilities will operate 6 days a week, approximately 300 days/year as follows:

- Area 1 MBT plant will operate 12 hours per day
- Area 2 MBT plant will operate 10 hours per day
- Area 3 MBT plant will operate 4 hours per day (due to the small amount of waste treated)

The selected option also includes:

- 3 landfills that will be sufficient for 30 year period:
  - Area 1 - 1.975 million m^3,
  - Area 2 - 1.240 million m^3,
  - Area 3 - 0.565 million m^3
- 2 transfer stations of 50,000 tons per year and 34,000 tons per year

Overall quantity of waste disposed in landfills will remain high – ca. 67% of the incoming waste flow (it can be assumed that compost-like output will end up in landfills because of high level of impurities).

3. Demand analysis

The demand is determined by comparing project targets with the current and forecasted municipal waste flows within the existing system. Forecasted waste flows are based on the expected population changes, tourism development, economic outlook, waste management targets, current waste generation quantities and other factors.

The RWMP indicates that the population in the region was decreasing in the period of 2001 – 2011, and the number will continue to decrease to 560,479 in 2025. However, the population number used to calculate waste generation in the Table 42 of the FS shows the opposite tendency and specifies that the population in 2025 will grow to 637,815. The feasibility study states that both population numbers, in the RWMP and in the Table 42 of the feasibility study, include population equivalent from the tourism.
Municipal waste generation is assumed 426.6 kg/person for the whole project reference period, which is a reasonable assumption.
Calculation for the waste generation forecast is not included in the project documentation. Assuming that the correct population number is provided in the RWMP (i.e. a decrease of 0.55% per year until 2025) and in the Table 27 of the FS, the adjusted generated municipal waste quantities would be as follows:

	2020	**2025**	**2030**	**2035**
Population based on the RWMP[2]	576,767	560,479	560,000	560,000
Waste quantity in the FS in ton/year	264,022	272,092	282,024	288,846
Adjusted[3] waste quantity in ton/year	246,049	239,100	238,896	238,896
Difference in ton/year	-17,973	-32,992	-43,128	-49,950

From the above table and without additional explanation, it could be expected that generated municipal waste quantities in the region are overestimated for the project's reference period.

The project region is divided in 3 Management Areas. The generated quantities of municipal waste for each Management Area for year 2020 are shown in Table 4.17 of the FS (in ton/year):

Area 1	***Area 2***	***Area 3***	***Project region total***
141,012	***82,423***	***40,587***	***264,022***

Project targets beyond the year 2020 have not been identified. Waste management targets for the region for the year 2020 are:

- Separate collection of 40 % of total weight of bio-waste;
- Recycle between 55%-80% of packaging waste;
- Preparing for re-use and recycling at least for paper, metal, plastic and glass to 65%;

[2] Assuming that the population after 2025 stays unchanged, as no forecast is provided in the RWMP
[3] Adjusted for the decreasing population according to RWMP forecast

- The biodegradable waste disposed in a landfill does not exceed 35% of the quantity of biodegradable waste produced in 1995 (49,738 ton).

Based on the above, the FS assumes that selectively collected bio-waste (46,317 ton in 2020) and packaging materials (30,074 ton in 2020) will not be sent to the project installations, as they would be recycled. The remaining municipal waste would need to be sorted and bio-stabilised by measures proposed in the project.
Based on the composition and waste management targets for year 2020 the FS concludes that the project will need to ensure treatment of the below mixed waste quantities (in ton/year):

2020	***2025***	***2030***	***2035***	***2050***
183,802	177,487	177,952	183,349	200,542

The detailed description and calculations determining the quantified targets and demand for waste treatment of the different waste fractions (plastic, metals, paper, cardboard, organic waste etc.) are not provided in the documentation, and cannot be verified.

The determined project demand does not take into account waste management requirements and targets set in Waste Framework Directive (2018/851) and Landfill Directive (2018/850). Without additional explanations, it is not possible to confirm that the project's demand is correctly identified.

4. Financial analysis

The financial profitability indicators reported in the AF are:

FRR(C)	FNPV(C)	FRR(K)	FNPV(K)
-26.83%	EUR -98,889,993	-24.00%	EUR -39,001,822

The figures presented in AF are inconsistent (i.e. FNPV(C) calculated based on section C.3 of the AF would be EUR -162,811,714.)
The project revenues refer to charges paid by users. They are:
- 81.22 EUR/ton of waste up to 150,000 t/year
- 35.32 EUR/ton of waste from 150,000 to 200,000 t/year.

They are supposed to cover availability payments and SGEI management cost incurred by the Peloponnese Region. If the polluter pays and full cost recovery principles are not met (as the low profitability indicators suggest), the tariffs shall be set at the maximum affordable limits established by the Member State. The feasibility study only claims that the tariffs will be collectable and affordable for the society.

The availability payments are as follows:
- 80.50 EUR/ton of waste up to 150,000 t/year
- 35.00 EUR/ton of waste from 150,000 to 200,000 t/year.

According to Article 10 of the Landfill Directive, Member States shall take measures to ensure that all of the costs involved in the setting up and operation of a landfill site, and the estimated costs of the closure and after-care of the site for a period of at least 30 years shall be covered by the price to be charged by the operator for the disposal of any type of waste in that site. In this project, at the end of the PPP contract the private partner is obliged to transfer the infrastructure to the public partner (Region of Peloponnese) in a condition allowing additional 5 years of operation. Consequently, the public partner will be later responsible for closure and after-care of all sites. Although not specified in the project documents, it probably means that the availability payments and consequently tariffs do not include the closure and after-care costs.

5. Economic analysis

The Beneficiary applied a 33-year reference period (exceeding the max. 30 years provided in the CDR 480/2014), including two years of construction. The economic discount rate is 6%. The incremental method was used.

The costs and benefits and the economic indicators presented in the Application Form are very different from the ones presented in the CBA model. The reported economic indicators are:

	ERR	ENPV	Benefit/Cost ratio
Application form	13.80%	EUR 6,102,000	3.20
CBA model	13.80%	EUR 104,248,426	1.59