

SWEDISH ENVIRONMENTAL PROTECTION AGENCY



Supporting Albanian Negotiations in Environment, Chapter 27 (SANE27)

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Title: Principles of tariff setting for waste management activities

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CONTENT





Legal basis of the tariffs for waste management services in Albania

Decision of Council of Ministers (DCM) no. 319, dated 31.5.2018 "On the approval of measures for the costs of integrated waste management" provides legal base for setting tariffs for the municipalities for waste collection and transportation.

The prices/tariffs for waste management services are decide by the Municipal councils.

Article 1 of DCM no. 319 "COST CALCULATION GUIDE FOR WASTE MANAGEMENT" presents the standard cost calculation system for waste management for a single Municipality. The system should be based on at least 7 data blocks.



Actual Costs: different approaches



SANE

Tariff calculation steps





A. Tariff Base calculation (Regional case)

1. Identification of cost/revenue centers (C/RC)

2. Estimation of the amount of all municipal waste generated and collected in each C/RC.

3. Estimation of direct costs and MSW management result at each C/RC.

4. Estimation and allocation to C/RC of administrative and other general costs.

5. Estimation of contingencies (risk reserve).

6. Calculation of Tariff Base for the C/RCs and average Tariff Base for the whole region (Eur/t.).



1. Identification of cost/revenue centers (C/RC):

- Based on Municipalities territories
- Regional base

2. Estimation of the amount of all municipal waste generated and collected in each C/RC:

- Flows of different kinds of MSW (separate collection, composted, mixed)
- Treatment and final "product" (output)



3. Direct MSW management result for each C/RC (DR)





 $DR_{C/RC} = OC_{C/RC} + PLC_{C/RC} + IC_{C/RC} - OI_{C/RC}$

4. Estimations and allocation to C/RC of administrative and other general costs





5. Estimation of contingencies (risk reserve)

- Contingencies is a revenue reserve which is necessary to reduce the risk of ongoing MSW management activities, to balance the estimated and actual costs and amounts of MSW disposal, and to cover any unforeseen operating expenses
- Contingencies are calculated by setting a certain rate of cost (%) – usually up to 5% of total costs (direct costs + administrative and other general costs)
- The company or the supervisory authority/Municipality may, on an annual basis, propose a rate lower than the maximum norm



6. Calculation of Tariff Base for the C/RCs (Eur/t.)





The Tariff base for the mixed MSW, EUR/t.

TB _{C/RC} = (EHC _{C/RC} + AGC _{C/RC} + NP _{C/RC}) / Q _{C/RC}

whereas:

TB_{C/RC} - C/RC (or regional) Tariff Base, Eur/t;

EHC_{C/RC} – C/RC (or regional) direct MSW disposal costs, Eur;

AGC_{C/RC} – administrative and other general costs assigned to C/RC, Eur;

NP_{C/RC} – contingencies, Eur;

 $Q_{C/RC}$ – amount of waste collected in C/RC (or region), t.

This algorithm calculates both the Tariff Base for each C/RC and the average Tariff Base for the entire area (region total).



B. Customers groups

- Households:
 - Individual houses
 - Multi-flat buildings
- Business clients (removing MSW in common containers)
- Contracted Busines Customers
- State Institutions



C. A set of possible parameters (tariff categories)

 Flat rate User Charges – EUR/person/month or EUR/hh/month (based on estimated waste generated – kg/person/month)

• Service related Charges:

- m³ (EUR/unit (emptying the container))
- t. (EUR/kg (weighing))
- EUR/m2 of premises or Eur/per real estate unit (flat, house, company or institution)
- Service unrelated Charges EUR/a (included in property tax or electricity/water tariff)
- Mix of few parameters (Fix + Variable part), etc.



D. Assignment of costs to each Customers group

- Evaluation of MSW accumulation norms (for different groups of Customers)
- Experience of other countries/regions
- Political decisions (for example: attributing a higher share of costs to the businesses)



E. Tariffs calculation for each Customer group (CG)

Single Tariff_{CG} = $\frac{\text{Costs assigned to CG}}{\text{Total Amount of Parametres of CG}}$

whereas:

CG- Costumer group

Single $Tariff_{CG}$ - Tariff for CG

Costs assigned to CG - part of the cost attributed specifically to CG

Total Amount of Parametres of CG - amount of parametres (weight (t.), volume (m3), total area of real estate object (m2), number of taxable objects (HH, inhabitants, real estate units)), attributed specifically to CG **Alternative decision:**

Binary Tariff_{CG} = Fixed part of Tariff + $\frac{\text{Variable Costs assigned to CG}}{\text{Total Amount of Parametres of CG}}$



+System of discounts and exemptions

- Subsidies from State or Municipalities
- Cross-subsidies:
 - Within individual customer groups (for example: richpoor)
 - Between customer groups (for example: HH-Business)
 - Between regions/municipalities (for example: adjustment of transport costs to the distances to the regional landfill)
- Cross-subsidies between activities of the MSW management Company (for example: use of profit from other activities)



Clear Tariff setting system = more easy implementation of Basic MSW sector Principles

Cost Recovery

Polluter Pays

Horizontal Equity

Implementation of Solidarity

Transparency

SANE 27 Supporting Albanian Negotiations in Environment Tariffs must reflect the costs associated with providing the service

Everybody pays for the damage causing to the natural environment

Everybody pays the same amount for the similar level of service

Transport costs from the MSW collection point to the MSW treatment point are covered jointly and severally by all municipalities in the region

Everybody understands the basic concept (simplicity) and can agree to its implementation



Common mistakes

- In determining the amount of the tariff:
 - not all costs are included in the tariff
 - costs included are not related to the MSW management activities
 - depreciation of grants is included
 - landfill closure and post-closure maintenance costs are not included or funds for landfill closure not used as intended
 - Assumptions for fundraising are too optimistic/pesimistic
- Unreasonable assumptions of MSW flows, Changes in customers volumes, etc.



CRITICAL SUCCESS FACTORS

Laws & Regulations	 Clear state environmental policy. Stability of strategic decisions Clear split of roles and responsibilities (State, Region, Municipality, RWC, inhabitants) Clear tariff size calculation, approval and recalculation methodology Social and Economic Benefit of Decisions (CBA)
Financial MSW sector management & Tariffs	 Financial management skills Transparent Setting and Evaluation of Cost/ Revenue centers Tariff recalculation and approval in time (after clear Methodology is approved) Affordability management
Cooperation – as important factor for success	 Integrated system of solid waste management with sustainable region development Cooperation of Municipalities and Operators Cooperation between public and private sectors Community outreach

To improve is to change, so to be perfect is to have changed often.

Sir Winston Churchill





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