



RESOLUTION

02.05.11 nr 9.1-3/11-002

Tallinn

Resolution regarding the non-approval of the price of water services applied for by AS Tallinna Vesi

1. Starting the tariff proceedings

On 10.11.2010 the Competition Authority (hereinafter the CA) received from AS Tallinna Vesi (hereinafter ASTV) an application for the approval of the water tariffs in Tallinn and Saue City together with the materials annexed thereto (hereinafter the Tariff Application).

Pursuant to the Public Water Supply and Sewerage Act¹ (hereinafter the PWSSA) § 14 (1), the following fees may be collected for water supply and leading off and purifying waste water, rain water, drainage and other soil and surface water (hereinafter the water tariff):

- 1) a charge for water extracted;
- 2) a charge for leading off and purifying waste water (hereinafter waste water);
- 3) a charge for leading off and purifying rain water and drainage and other soil and surface water (hereinafter storm water);
- 4) a basic fee.

Pursuant to the PWSSA § 14² (1), if the operation territory of the water undertaking is situated in a waste water collection area with a pollution load of 2,000 human equivalents (hereinafter he) or more, the water undertaking shall compile a proposal for the price of the water service and submit it to the Competition Authority for approval before establishing the price of the water service, together with a price list regarding the services related to principal services and other documentation that the price application is based on.

Tallinn is located on a waste water collection area with the registry code No RKA0370010, the pollution load of which is 468 000 he. Saue City is located a waste water collection area with the registry code No RKA0370011, the pollution load of which is 6255 he. Hence, both operating areas constitute areas with a pollution load above 2000 he, therefore the CA's approval needs to be obtained to water tariff in line with the PWSSA § 14² (1).

Pursuant to the PWSSA § 14 (6), the water undertaking providing services to several different waste water collection areas (in this case Tallinn and Saue City) may establish a compound water tariff for all areas, considering the summarised costs of the water undertaking. Hence, ASTV has the right to submit the Tariff Application for a compound water tariff in both Tallinn and Saue City.

Pursuant to the PWSSA § 14² (1), the documentation serving as the basis for a Tariff Application must enable the CA to check that the proposed price would only include the justified costs and profits laid down in subsection 14 (2).

¹ RTI 1999, 25, 363; 2010, 56, 363

According to the PWSSA § 14 (2), the price of the water service shall be established such that the water undertaking can:

- 1) cover justified operation costs;
- 2) make investments to guarantee the sustainability of the existing public water supply and sewerage systems;
- 3) comply with environmental requirements;
- 4) comply with quality and safety requirements;
- 5) operate with justified profitability on the capital invested by the water undertaking;
- 6) develop the public water supply and sewerage system, including the rain water sewerage, in accordance with the public water supply and sewerage system development plan in an area where more than 50 per cent of residential buildings for which building permits were issued before 22 March 1999 are connected to the public water supply and sewerage system.

In order for the CA to be able to check based on the PWSSA § 14² (1), whether the water tariff applied for only includes the justified costs and profits laid down in subsection 14 (2), the water undertaking is required to differentiate the costs in the accounts.

Pursuant to the PWSSA § 7² (1), in addition to the fulfilment of the requirements provided for in clause 18 (1) 2) of the Competition Act, a water undertaking shall keep separate account of the costs of following operations:

- 1) water supply;
- 2) leading off and purification of waste water;
- 3) leading off rainwater and drainage water and other soil and surface water;
- 4) additional services related to the operations mentioned in clauses 1–3 of this subsection;
- 5) connection charges for subscribing to the public water supply and sewerage system;
- 6) other operations.

Pursuant to the PWSSA § 7² (2), the costs mentioned in clauses 1–4 of this subsection must separately point out the assets acquired by grant aid.

PWSSA § 7² (3) states that if the water undertaking provides the service to a client or another water undertaking on the territory of several local governments, the water undertaking must keep separate account across different local governments pursuant to the provisions laid down in subsection (1) of this section, except if local governments have reached a different agreement.

In line with the PWSSA § 14 (9), the CA developed the guidelines “Recommendatory principles for calculating the price of water service”² (hereinafter the Guidelines) and published it in its webpage. When developing the Guidelines the provisions of the PWSSA § 14, 14¹, 14² were considered, based on which the water tariff is calculated dividing the justified costs, capital cost and justified return of the water undertaking by sale volume (articles 7.3; 7.5; 7.6 of the Guidelines), i.e. using the cost-based approach.

Based on article 4.8 of the Guidelines, the CA uses the following methods for checking whether the water tariff is justified:

- 1) Observing the dynamics of costs in time and the comparison thereof with the dynamics of the CPI;
- 2) In-depth analysis of the justifiability of various cost components (incl. expert opinions);
- 3) Comparison of the operating expenses of the undertaking and the statistical indicators calculated on the basis thereof with the indicators of other undertakings.

² The Guidelines are Publisher on the CA’s webpage (<http://www.konkurentsiamet.ee>, menu: energeetika- ja veeteenistus/Vesi/Hinna kooskõlastamise meetodikad ja juhendid). In the tariff approval process, whilst analysing the operation and approving the tariffs of all water undertakings under the CA’s regulation, the Guidelines are applied in the similar and same manner in order to avoid unequal treatment. The named Guidelines may be used also by local governments when approving water tariffs.

According to the Administrative Procedure Act (hereinafter APA) §5 (1), the CA has the right to establish the format of administrative proceedings based on the right of discretion. Pursuant to APA §5 (1), the CA has developed and published on its webpage³ the tariff application forms (hereinafter the Questionnaires) in excel format: „Detailed questionnaire for water undertakings“, „Simplified questionnaire for water undertakings“. The questionnaires have been developed in line with the Competition Act (hereinafter CompA) §18 (1) clause 2; PWSSA §7² (1), (2), (3) ja PWSSA §14 (1), (2) and when filled in include data which according to the PWSSA §14² (1) enable the CA to ensure that the water tariff applied for only includes the justified costs and profits laid down in PWSSA § 14 (2). When filling in the Questionnaires, one can proceed from the “Guidelines for the submission of a tariff application” developed by the CA and published on its webpage⁴“.

Pursuant to the PWSSA §14² (10), the CA is obligated to request an opinion from the rural municipality or city government regarding the compliance of a price application to the public water supply and sewerage development plan.

Pursuant to the PWSSA §14² (7), upon the fulfilment of their obligations provided for in this Act the water undertaking shall allow the CA to examine its accounting, shall justify the bases for establishing the price of the water service and provide required explanations regarding its economic activities.

Pursuant to the PWSSA §14² (4), the decision regarding the approval of the price application shall be made within 30 days of the receipt of a suitable application. Upon processing an especially complicated or time-consuming application, the CA or the local government may extend the due date up to 90 days, by notifying of the extension of the due date before the arrival of the initial due date.

Pursuant to the PWSSA §14² (11), the term for processing the price application is suspended, if the CA is not presented with the requested information, which is necessary to approve the price application.

1.1 Data of the Applicant

ASTV's main activities include the production, treatment of water and supplying water to consumers and the discharge and treatment of waste- and storm water.

ASTV is the biggest water undertaking in Estonia, offering water and wastewater services to over 400,000 people in Tallinn. In Tallinn operating area ASTV has the exclusive right of providing public water supply and wastewater services until the year 2020. ASTV has also been appointed as a water undertaking in: Saue City, Maardu City, Saue Rural Municipality, Harku Rural Municipality. In addition ASTV is providing public water supply and/or wastewater services to several water undertakings operating in surrounding rural municipalities.

The company has two treatment plants – Ülemiste WTP and Paljassaare WwTP. Ülemiste WTP has sufficient additional capacity to increase production volumes and to provide services to a much bigger population than it is done now.

ASTV has over 20,000 contractual customers and employs 307 people.

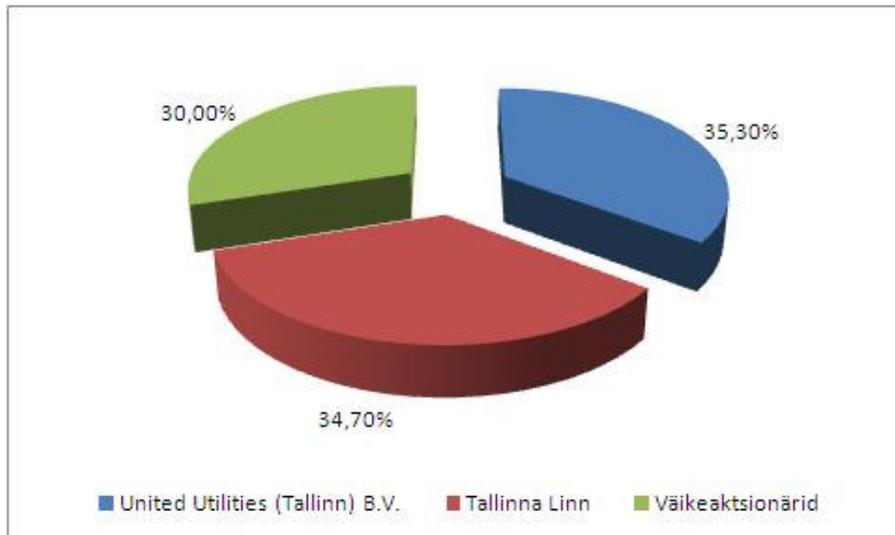
ASTV's MB has three members, including the CEO (Chairman of the MB), COO and CFO. The Council of the company includes 9 members.

ASTV was privatised in 2001. Since 1.06.2005 ASTV shares have been listed on the main list of TSE.

As at 31.12.2010, the company had 2856 shareholders. 30% of the free float of the company on the TSE is owned by foreign institutional investors by 19.5%; local small investors by 6.4%; local institutional investors by 3.9% and foreign small investors by 0.2%.

³ Published on the CA's webpage: <http://www.konkurentsiamet.ee> under: energeetika- ja veeteenistus/Vesi/ Hinnataotluse vormid.

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AKTSIONÄRID	AKTSIAID	OSALUS
United Utilities (Tallinn) B.V.	7 060 870	35,30%
Tallinna linn	6 939 130	34,70%
Väikeaksionärid	6 000 000	30,00 %

The company has 20 million A-shares and 1 B-share. 30% of the A-shares i.e. 6,000,0000 is on a free float on TSE.

1.2 Course of proceedings and positions

On November 10th 2010 the CA registered ASTV's application for approving water tariffs with the appended materials (Tariff application).

ASTV sought approval to the following water services tariffs⁵ (the CA has replaced the water service terminology used by ASTV with the terminology used in §14 (1) of the PWSSA in the interest of the understandability of the resolution):

A charge for water extracted (kr/m³):

	2011	2012	2013	2014	2015
Physical person	15,52	15,95	16,41	16,88	17,33
Legal person	38,26	39,13	40,06	41,01	42,10

A charge for leading off and purifying waste water (kr/m³):

Physical person	12,50	12,85	13,22	13,60	13,96
Legal person	27,69	28,32	29,00	29,68	30,48

A charge for water extracted (€/m³):

	2011	2012	2013	2014	2015
Physical person	0,99	1,02	1,05	1,08	1,11
Legal person	2,44	2,50	2,56	2,62	2,69

A charge for leading off and purifying waste water (kr/m³):

Physical person	0,79	0,82	0,84	0,87	0,89
Legal person	1,76	1,81	1,85	1,90	1,95

⁵ The table at the beginning of page 42 of the „AS Tallinna Vesi's tariff application and business plan for the period 2011-2015“ submitted by ASTV on 10.11.10.

The CA determined that the Tariff application submitted on 10.11.2010 had deficiencies as per §15 section 2 of the Administrative Procedure Act. The CA explained and justified the deficiencies and how to eliminate them from the Tariff application in its letters on 17.11.2010 and 13.12.2010 and during meetings between CA and ASTV representatives on 03.01.2011.

On 14.01.2011, ASTV amended its 10.11.2010 Tariff application base documentation to the extent where the **Tariff application could be deemed as compliant with requirements from 14.01.2011**, as it allowed the CA to fulfil its obligation stipulated in PWSSA §14² section 1 to verify that the applied tariff would only include the justified costs and profitability as stipulated in § 14 section 2 of the PWSSA. As per PWSSA §14 section 4, the deadline for processing the Tariff application commences from the moment an application compliant with requirements was submitted (in more detail –from the day following the receipt of the compliant application), i.e. 15.01.2011.

Pursuant to PWSSA §14² (9) the CA is entitled to request for additional information required for making a decision regarding the approval of the price. On 03.02.2011, the CA submitted an inquiry to ASTV due to the need to receive additional data for processing the application of approving the water tariff. PWSSA §14² section 9 grants the CA the right to require data that is necessary for approving water tariffs. PWSSA's §14² section 11 stipulates that the deadline for processing the Tariff application is suspended until the information requested by the CA is made available to it.

On 11.02.2011, the CA sent a letter to ASTV extending the Tariff application processing deadline from 30 days to 90 days, as

- 1) PWSSA § 14² section 10 states that the CA must ask for the opinion of Tallinn and Saue city governments on the compliance of ASTV's Tariff application with the public water and wastewater development program and the deadline for presenting such opinion was until 16.02.2011 for Tallinn and Saue city governments (the CA needs time to analyze the materials).
- 2) processing ASTV's Tariff application was more complex and laborious than anticipated, as ASTV is the largest water undertaking in Estonia and therefore it is not possible to process the water tariff during the 30 days as stipulated in PWSSA § 14² section 4.

On 24.01.2010 the CA sent an inquiry to Tallinn and Saue city governments, asking whether the investments into regulated asset base were in compliance with the public water and wastewater development program as according to PWSSA § 14² section 10.

According to the responses from Saue City Government on 10.02.2011 and from Tallinn City Government on 16.02.2011, the investments presented in the Tariff application are in accordance with the public water and wastewater development program. Based on the above, if the local municipality has fulfilled its legal obligations, the PWSSA § 14 section 2 article 2 is enforced through the investments being included in the water tariff.

On 16.02.2011, ASTV responded to the questions raised by the CA on 03.02.2011, based on which the CA addressed further questions to ASTV on 17.02.2011 and 18.02.2011. The last answers to the CA's questions were received on 21.02.2011.

On 28.02.2011 the CA submitted an analysis in which it presented its positions regarding the Tariff Application submitted by ASTV. Following §40 (1) of the Administrative Procedure Act (APA), the CA gave an opportunity to ASTV to present its positions at the latest by 15 March 2011 to the positions presented in the analysis prepared by the CA on 28.02.2011. On 03.03.2011 ASTV submitted an application to the CA to extend the deadline of responding to the analysis prepared by the CA on 28.02.2011 from 15.03.2011 to 29.03.2011. The CA agreed with ASTV's application to extend the response deadline, of which it informed the company on 07.03.2011 by email.

On 15.03.2011 ASTV submitted another application to the CA in which it asked to extend the response deadline given to ASTV by the CA to 13.05.2011. As a reason for extending the deadline ASTV pointed out the submission of a complaint to European Commission in connection with the

basis for price formation of water services (in the price approval process the CA proceeds from the Public Water Supply and Sewerage Act, ASTV from the privatisation contract).

In the response sent on 18.03.2011 the CA noted that the possible action of the European Commission in solving the complaint of ASTV is not connected to the object of this administrative procedure. Pursuant to §5 (2) of the APA, administrative procedure shall be purposeful and efficient, also as easily and quickly as possible. In addition it is in the interest of the public and the consumers to conduct the proceeding of the tariff application review as quickly as possible. On the basis of the abovementioned the CA could not consider the additional extension of the response deadline of ASTV to be justified and informed that if ASTV fails to respond by 29.03.2011, the CA shall regard it as not exercising the right provided by §40 (1) of the APA.

On 29.03.2011 ASTV submitted its positions regarding the analysis submitted by the CA to ASTV on 28.02.2011.

2. Company characteristics

ASTV, utilizing the right derived from PWSSA §14 section 6, wished to establish a compound water tariff for the municipalities of Tallinn and Saue, based upon gross costs. Therefore the CA shall analyze ASTV's gross costs, capital costs and justified profitability in the cities of Tallinn and Sue.

The following table (Table 1) lists ASTV's general indicators in the period 2008-2011. The column "2011" in this letter reflects data from the 12 months that serve as the basis for calculating water tariffs, i.e. data from the **regulation period**. Regulation period is a 12-months period the costs and justified return of which serve as the basis for calculating the price of water service (article 2.12 of the Guidelines).

Table 1

Row no.	Tallinn and Saue cities		2008	2009	2010	2011
1	Volume of extracted water	th.m3	19066	18106	17916	17916
2	Wastewater disposal and treatment service total	th.m3	19088	18152	18139	18139
3	Domestic consumers	no	17 861	19 192	19 709	19 709
4	Commercial consumers	No	2386	2510	2899	2899
5	Number of water pumping stations	No	66	66	66	0
6	Number of wastewater pumping stations	No	82	87	98	0
7	Length of public water network	km	909	925	931	931
8	Length of public wastewater network	km	1213	1269	1263	1263

It is possible to conclude from the table (Table 1) that the number of ASTV's consumers has steadily grown from 2008 to 2010 (Table 1 rows 3 and 4) and this has occurred even despite the economic recession in 2009. However at the same time water consumption (Table 1 row 1) has decreased, which is characteristic of an economic recession. The number of consumers has certainly increased partly due to the increased length of the public water network.

3. Principles for calculating water tariffs.

According to article 7.1 of the Guidelines, the basis for calculating water tariffs is the allowed sales revenue during the regulation period ($T_{allowed}$). Article 7.2 of the Guidelines allows the following costs to be included in the water tariffs:

- 1) Operating costs;
- 2) Cost of capital;
- 3) Justified rate of return.

Based on article 7.3 of the Guidelines, the allowed sales revenue is calculated based on the following formula:

$$T_{allowed} = TK + A + PT,$$

where:

- $T_{allowed}$ - allowed sales revenue;
- TK - operating costs;
- A - cost of capital;
- PT - justified rate of return.

According to article 7.5 in the Guidelines, the division of allowed sales revenue between the various water services must be justified and correspond to the following formula:

$$T_{Iubatud} = \sum T_{Iubatud_n},$$

where:

- $T_{allowed}$ - the allowed sales revenue of the respective water service;
- n - water service.

Based on article 7.6 of the Guidelines, the allowed sales revenue serves as the basis for calculating specific water service tariffs as follows:

$$hind_n = \frac{T_{Iubatud_n}}{m_n} (kr/m^3),$$

where:

- $T_{Iubatud_n}$ - the allowed sales revenue of the respective water service during the regulation period;
- m_n - the sales volume of the respective water and wastewater service during the regulation period;
- $hind_n$ - water tariff of the respective water service during the regulation period.

3.1 ASTV data for calculating water tariffs

The CA has compiled the data submitted by ASTV on Tallinn and Saue City into the following table (see Table 2), which serve as the basis for calculating the water tariff and the validity of which will thereafter be analyzed by the CA:

Table 2

	ASTV (Tallinn and Saue City)	Charge for water	Charge for wastewater disposal and treatment**	Charge for stormwater and drainage and the disposal and treatment of other ground water and surface water and hydrants
Operating costs (th.€)	17 592	7 623	7 462	2 507
Cost of capital (th.€)	5 044	2 157	2 641	245
Justified rate of return (th.€)	23 510	13 871	8 714	925
Allowed sales revenue (th.€)	46 146	23 651	18 817	3 678
Sales volume (th.m ³)		17 916	18 139	
Water tariff (€/m ³)		1,32	1,04	

*Charge for water includes the charge from both domestic and commercial customers. Water tariff 1.32 €/m³ is the weighed average water charge from both domestic (0,99 €/m³) and commercial customers (2,44 €/m³).

**Charge for wastewater disposal and treatment includes the charge for wastewater disposal and treatment from both domestic and commercial customers. Wastewater tariff 1,04 €/m³ is the weighted average wastewater charge from both domestic (0,79 €/m³) and commercial customers (1,76€/m³).

The CA has performed the control of the justifiability of the price of water service ASTV's water and wastewater services gross costs (Table 2 column ASTV) – on the basis of column "ASTV" of Table 2, which respectively reflects the gross operating costs, cost of capital and justified rate of return on the provision of water and wastewater services, which have been derived from (Article 7.5 of the Guidelines):

- respectively the operating costs, cost of capital and justified rate of return that serve as the basis for calculating water tariffs for physical persons;
- respectively the operating costs, cost of capital and justified rate of return that serve as the basis for calculating water tariffs for legal persons;
- respectively the operating costs, cost of capital and justified rate of return that serve as the basis for calculating wastewater disposal and treatment tariffs for physical persons;
- respectively the operating costs, cost of capital and justified rate of return that serve as the basis for calculating wastewater disposal and treatment tariffs for legal persons.

In the materials submitted by ASTV on 10.11.2010 ("AS Tallinna Vesi's tariff application and business plan for the period 2011-2015" page 28) ASTV points out that the formula for the formation of water tariff was agreed at the company's privatisation in 2001, which allegedly took into account the price formation mechanism stipulated in §14 (3) of the PWSSA. At the privatisation the City of Tallinn and the privatising party International Water UU (Tallinn) B.V concluded several contracts (incl. Services Agreement). AS Tallinna Vesi's tariff application and business plan for the period 2011-2015 is based on the Project Agreements concluded with the City of Tallinn, of which the important document is the Services Agreement. In Services Agreement it is written on page 28 of the "AS Tallinna Vesi's tariff application and business plan for the period 2011-2015" that "the tariff adjustment mechanism that was agreed for ASTV as part of the project agreements is as follows:

Tariff of the previous year
+ CPI
+ agreed 'K' factor
+ change of law
= tariff for forthcoming year"

The CA is of the position that agreements concluded between any parties and ASTV do not possess a stronger legal power than the PWSSA, which the CA follows in its tariff approval process. PWSSA §14 (2) foresees a cost-based price of water service. The CA believes that the water tariff submitted for approval by ASTV is justified only if the basis for its formation complies with the principles set in PWSSA §14 (2). Therefore the CA is obligated to follow only the PWSSA when analyzing the price of water service submitted for approval by ASTV, therefore only a cost-based water service tariff is justified.

3.2 Water tariffs for natural and legal persons.

PWSSA §14 (4) stipulates that the price of the water service shall not be discriminatory with regard to different clients or groups of clients. A price that is different for natural and legal persons must be considered discriminatory, because it does not comply with the aforementioned principle of equal treatment. PWSSA §16 (11) states that if a local government has established a lower price for physical persons than legal persons, then **the water undertaking shall bring the applied prices into compliance with the requirements of equal treatment** so that the **annual change** in the difference between prices for natural and legal persons would not exceed 1/15 of the difference applied by the

water undertaking as at 31 October 2010. The explanatory notes⁶ from the 18.02.2010 session of the parliament's economic committee (page 15), the excerpt of which on PWSSA §16 (11) has been highlighted by the CA as follows: “Section 11 regulates the often practiced situation, where a local municipality has cross-subsidized domestic customers at the expense of commercial customers when establishing water tariffs. The water-undertakings will be obligated to bring their tariffs to compliance with the requirements for cost-based prices and equal treatment so that the annual change in the difference between domestic and commercial tariffs would not exceed 1/20 of the tariff difference between the different prices as of the time this law comes into effect. **Failure to comply with this requirement by the water-undertaking will serve as the basis for not approving the Tariff application.** As per the implementing provisions, the price difference must be balanced out during the course of 20 years, regardless of how wide the price difference between the domestic and commercial tariffs is at the time of implementing the law. The objective of the implementing provision is to ensure a long enough transition period for ending the cross subsidization established by the local municipality, so as to avoid any domestic tariff increases and any economic or social difficulties associated with that”. In the course of further legislative amendments the 20-year tariff balancing period has been replaced with 15 years, but the principle of PWSSA §16 (11) remains the same.

Thus as per PWSSA §16 (11), the price difference between natural and legal persons⁷ in ASTV's Tariff Application must decrease over 15 years.

Considering the above, the CA has compiled Table 3 on the price differences between water and wastewater tariffs charged by ASTV from natural and legal persons in Tallinn and Saue as of 31.10.2010.

Table 3 Price difference between physical and legal persons

Row nr.		30.10.2010		ASTV Tariff application		
		Charge for water extracted	Charge for leading off and purifying waste water	Charge for water extracted	Charge for leading off and purifying waste water	
1	Tariff for physical persons	0,95	0,78	0,99	0,79	€/m ³
2	Tariff for legal persons	2,32	1,69	2,44	1,76	€/m ³
3	Price difference (legal - physical persons)	1,37	0,91	1,45	0,97	€/m ³

The price difference in charge for water extracted for natural and legal persons as of 31.10.2010 is **1,37 €/m³** (Table 3 row 3 column “Charge for water extracted”: 2,32-0,95 = 1,37 €/m³). ASTV has in its 2011 Tariff Application sought approval to a price difference of **1,45 €/m³** (Table 3 row 3 column “Charge for water extracted”: 2,44€/m³ ASTV water tariff for legal persons applied – 0,99€/m³ ASTV water tariff for physical persons applied = 1,45€/m³) for natural and legal persons in the charge for water extracted. **Thus ASTV has increased the price difference between the water tariffs for natural and legal persons from 1,37€/m³ at 31.10.10 to 1,45 €/m³, contrary to the stipulations of PWSSA § 16 (11), which prescribe a reduction of price differences. Based on the above and PWSSA §14 (4) and PWSSA §16 (11), the CA can not regard ASTV's Tariff Application as justified.**

The price difference in the charge for leading off and purifying wastewater for natural and legal persons as of 31.10.2010 is **0,91 €/m³** (Table 3 row 3 column “Charge for leading off and purifying

⁶ Explanatory note submitted to the economic committee on 02.08.2010 titled „Explanatory note to the amended text submitted for the first reading of the Anti-Monopoly Bill (597SE“ is available at the website of Riigikogu <http://www.riigikogu.ee/?page=eelnou&op=ems&emshelp=true&eid=790420&u=20110221125957>

⁷ See also the „Recommendatory model for equalising the price difference of water service“ published on the website of the CA <http://www.konkurentsiamet.ee/?id=18324>.

waste water”: $1,69 - 0,78 = 0,91 \text{ €/m}^3$). ASTV has in its 2011 Tariff application sought approval to a price difference of **0,97 €/m³** (see Table 3 row 3 column “Charge for leading off and purifying waste water”: $1,76 \text{ €/m}^3$ ASTV wastewater tariff for legal persons applied – $0,79 \text{ €/m}^3$ ASTV wastewater tariff for physical persons applied = $0,97 \text{ €/m}^3$) for natural and legal persons in the the charge for leading off and purifying wastewater.

Thus ASTV has increased the price difference between wastewater tariffs for natural and legal persons from 0,91 €/m³ at 31.10.10 to 0,97 €/m³, contrary to the stipulations of PWSSA § 16 section 11, which prescribe a reduction of price differences. Based on the above and PWSSA § 14 section 4 and PWSSA §16 section 11, the CA can not determine ASTV’s Tariff application as justified.

In the analysis sent on 28.02.2011 the CA pointed out that proceeding from the abovementioned the price for water service had not been formed in compliance with PWSSA §14 (4), which sets out that the price of water service cannot be discriminating for various customers or customer groups. Additionally, the price of water service is not in compliance with PWSSA §16 (11), which obligates the water company to take the applicable price of water service into compliance with the requirement of equal treatment, i.e. to lose discrimination in such a manner that the price difference between natural and legal persons valid on 31.10.2010 would reduce. Thus the CA cannot consider the Tariff Application submitted by ASTV to be justified.

Additionally, based on §40 (1) of the APA, the CA gave ASTV an opportunity to present its objections to the position of the CA in writing.

The response sent by ASTV on 29.03.2011 presented in conclusion the following objections to the positions of the CA:

- ASTV had not received instructions from the CA for equalisation of the tariffs.
- ASTV had not intended to increase the price difference between natural and legal persons, but when submitting the Tariff Application it converted the tariffs after the price increase as applied by ASTV into euros and rounded the tariffs down, which is why the CA has been left with an erroneous impression of ASTV’s intention to increase the difference in the price of water service between natural and legal persons.
- PWSSA does not set put the rate of equalising the price of water service nor has it established a more specific method how the equalisation of tariffs should proceed.

CA’s final position regarding the compliance of the formation of price of water service in compliance with PWSSA §14 (6) and PWSSA §16 (11) is the following:

In the analysis sent on 28.02.2011 the CA referred to the “Recommendatory model for equalising the price difference of water service” published on its website, based on which it would be possible for ASTV to remove the contradiction in the price of water service with PWSSA §14 (4) and PWSSA §16 (11) also in case the spirit of the law was incomprehensible for ASTV. Pursuant to PWSSA §16 (11), if the local government has established to the physical persons a lower price than for the legal persons, then the **water company undertakes to bring the applicable prices into compliance with the requirement of equal treatment** in such a manner that **the annual change** in the difference between the prices for natural and legal persons would not be higher than 1/15 of the difference of the prices applied by the water company as of 31.10.2010. “Recommendatory model for equalising the price difference of water service” is a table in Excel format to which the water company enters:

- Prices of water service valid on 31.10.2010;
- Volumes of water service of the 12 months preceding the regulation period;
- Volumes of water service planned for the regulation period (article 2.12 of the Guidelines) reflected in the tariff application;
- Weighted average price of water service in the regulation period.

After the water company enters the abovementioned data, the Excel table shall calculate the price of water service compliant with PWSSA §16 (11) for natural and legal persons. As “Recommendatory model for equalising the price difference of water service” is published on the CA’s website, which

the CA referred to in the analysis sent on 28.02.2011, then the CA cannot consider it justified that ASTV did not equalise the price difference for a reason that it did not know how to do it. Also, ASTV has not turned to the CA with a specific question in relation to “Recommendatory model for equalising the price difference of water service”.

The CA cannot agree with ASTV’s statement that the company did not wish to increase the price difference between natural and legal persons. Also, it cannot agree with the statement that the CA has such impression due to converting kroons to euros. From pages 10 and 11 of this resolution it appears that ASTV has increased the price difference between natural and legal persons contrarily to the spirit of PWSSA §16 (11) and has not submitted a mathematical proof how instead of increasing the price difference ASTV actually reduced the price difference. Thus the CA cannot also agree with ASTV’s statement that the price difference has been reduced instead of increasing.

The CA cannot agree with the fact that ASTV has not complied with the requirements set in PWSSA §14 (4) and PWSSA §16 (11) due to the fact that the PWSSA does not set the rate of equalising the tariffs (it has only been established that the equalisation of the price of water service shall not proceed quicker than within 15 years) and how the equalisation of tariffs should proceed. PWSSA §16 (11) foresees bringing the price of water service into compliance with the requirement of equal treatment and the explanatory note of the session of the economic committee on 18.02.2010⁸ (page 15), sentence *“Pursuant to the application provision the price difference is subject to be equalised within 20 years, irrespective of the fact how large are the so-called price scissors between the prices applicable to natural and legal persons at the time of enforcing the law”* (In the course of further legislative amendments the 20-year tariff balancing period has been replaced with 15 years, but the spirit of PWSSA §16 (11) has remained the same, which allows to use the sentence from the explanatory note for a better understanding of the valid PWSSA §16 (11)) allows to conclude unambiguously that there is a desire to implement the requirements not faster than within 15 years, however, but also not slower than 15 years. Thus the explanatory note to the PWSSA has provided sufficient guidelines for equalising the price of water service, for the understanding of which the CA has additionally developed “Recommendatory model for equalising the price difference of water service”. In a situation in which ASTV had all the opportunities for equalising the price difference, ASTV decided not to bring the price of water service into compliance with PWSSA §14 (4) and PWSSA §16 (11).

Based on the above, the water tariff has not been formed in accordance with PWSSA §14 section 4, which states that water tariffs may not be discriminatory towards different customers or customer groups. Also, the water tariff is not in accordance with PWSSA §16 section 11, which obligates the water undertaking to bring the water tariff into compliance with the requirements for equal treatment, i.e. to abolish the discrimination in such a manner that the price difference between domestic and commercial customers would decrease. Therefore the CA can not determine ASTV’s Tariff application as justified and shall not approve the price of water service requested by ASTV.

3.3 ASTV’s application to approve water tariffs for the period 2011 until 2015

The CA can not agree with ASTV’s desire to approve water tariffs for the years 2011 until 2015 (table presented on page 15 of this resolution) with a prognosis for an annual prescribed tariff increase, although the CA justified and explained in its 17.11.2010 and 13.12.2010 letters why the approval of water tariffs in such a manner would be in violation of the PWSSA.

The CA will hereby once again publish its position in short as specified in the letters dated 17.11.2010 and 13.12.2010, which was in summary also presented in the analysis prepared by the CA on 28.02.2011 .

⁸ Explanatory note submitted to the economic committee on 02.08.2010 titled „Explanatory note to the amended text submitted for the first reading of the Anti-Monopoly Bill (597SE“ is available at the website of Riigikogu: <http://www.riigikogu.ee/?page=eelnou&op=ems&emshelp=true&eid=790420&u=20110221125957>

In the analysis sent on 28.02.2011 the CA remained to the position that approving the prices for water service for the period of 2011 to 2015 with an annual predetermined specific price increase is not in compliance with the provisions of the PWSSA, because the PWSSA does not provide the approval of the prices for a specific period nor an annual price increase. The costs that serve as the basis for calculating the price of water service as stipulated in PWSSA §14 (2) are variable over time due to circumstances dependent on the company's activities as well as circumstances not dependent on the company's activities (e.g. pollution tax rates or water resource charge rates). It is not possible for the company to predict the changes in the costs so clearly in a longer perspective, moreover because the changes related to some of the costs derive from the law. The company cannot predict in a longer perspective the changes that take place in the economic life that impact the price of water service, especially with regard to these costs, the rates of which are conditioned by the will of the legislator (pollution tax rates or water resource charge rates). Therefore and resulting from PWSSA §14² (6) the water undertaking is obliged to monitor the circumstances not dependent on its activity, which impact the price of water service, and inform the CA at the latest within 30 days as of the occurrence of the circumstances, which may impact the price for the service more than by 5%. Thus for objective reasons the approval of the prices for water service in this case for the years 2011-2015 and predetermining a specific increase in the price of water service by the water undertaking is precluded. The PWSSA does not specify the termination of the validity of an approved price for water service after a concrete term, therefore the water tariffs remain in effect until the requirements prescribed in PWSSA §14 (2) are fulfilled. The PWSSA does not foresee pre-determining water tariffs annually for a longer time period (namely 2011-2015) with specific tariff increases.

Additionally, based on §40 (1) of the APA, the CA gave ASTV an opportunity to present its objections to the position of the CA in writing.

On 29.03.2011 ASTV presented objections to the positions of the CA as follows:

- *"We would like to reiterate that ASTV applied from the CA for a change in the tariffs as of 2011 by 3.5% and the approval for the principle for amending the tariffs for the following years"*.

- In its objections ASTV pointed out that the 12-month regulation period chosen by the CA is not based on any provision of the PWSSA and it is not supported by the legal act regulating the field. The best practice implemented in Europe foresees the regulation period of 3-5 years. The regulation guidelines developed by the World Bank marks as the length of the price control period 5 and 10 years, however, in case of the latter there is an interim review after 5 years.

CA's final position regarding approving the price of water service for a period of 2011 to 2015.

From the sentence by ASTV: *"We would like to reiterate that ASTV applied from the CA for a change in the tariffs as of 2011 by 3.5% and the approval for the principle for amending the tariffs for the following years"* the CA concludes that ASTV would like to approve the price of water service for 2011 and to approve *"the principle of amending the tariffs"*, instead of the specific prices of water service pointed out in the application presented on 10.11.2010, for the years 2012, 2013, 2014 ja 2015 (see clause 1.2 of this resolution). Despite this request, ASTV did not make any changes to the application. Proceeding from the task imposed on the CA from PWSSA §14² (1) the CA shall carry out the proceeding for the prices of water service presented in the application and reflected in column "2011" of the following table. Approval of *"the principle of amending the tariffs"*, in the form and wording presented by ASTV, is not foreseen by the PWSSA.

In the following the CA has pointed out the valid price of water service (in column 2010) in comparison with the price of water service that ASTV sought approval to pursuant to the response by ASTV of 29.03.2011.

Charge for water extracted (€/m³):

	2010 *	2010**	2011
Physical persons	0,96	0,95	0,99
Legal persons	2,36	2,32	2,44

Charge for leading off and purifying waste water (€/m³):

	2010 *	2010**	2011
Physical persons	0,77	0,78	0,79
Legal persons	1,71	1,69	1,76

2010* data from the application submitted on 10.11.2011;

2010** data from ASTV's website from the valid price.

As said above, the PWSSA does not stipulate the task of approving the “principle of amending the tariffs” on the CA. However, the PWSSA §14 (9) obligates the CA to develop and publish on its website Guidelines, which the CA has done. Guidelines are applied in approving the prices of water service similarly and uniformly when analysing the activity of all water undertakings under the regulation of the CA and when approving the prices for preventing unequal treatment. Proceeding from the abovementioned it is not justified nor required to approve the principle of amending the tariffs that ASTV has requested.

At the same time the CA points out that in case of ASTV the price of water service must be approved with the CA pursuant to PWSSA §14² (1). After approving the price of water service by the CA, the water undertaking shall establish the price of water service and publishes it at least 30 days before the date as of which such price applies pursuant to PWSSA §14¹ (1). Following the making of the resolution by which the price is established, the water undertaking shall publish a notice regarding establishment of the price at the home page of the local government or the water undertaking and once in at least one local or county newspaper. Only after the abovementioned has been carried out by the water undertaking, the new prices of water service will take effect.

Regulation period. As a response to ASTV regarding the regulation practice applied in various countries, the CA is of the position that price regulation in Estonia cannot proceed pursuant to the alleged regulation practices of other countries, but **without exception** being based on the legislation valid in Estonia. PWSSA does not establish the period of the validity of the price. PWSSA §14 (2) sets out the cost-basis of the water price. PWSSA §14² (6) obligates the water undertaking to monitor the circumstances not dependent on its activity, which impact the price of water service, and inform the CA at the latest within 30 days as of the occurrence of the circumstances, which may impact the price for the service more than by 5%. Thus the price of water service shall be valid until it complies with PWSSA §14 (2). PWSSA §14 (9) obligates the CA to develop and publish on its website Guidelines, which the CA has done. Article 2.12 of the Guidelines defines the regulation period as a 12-months period, regarding which the water undertaking applying for a price shall prepare the forecasts of costs and return, based on which the price of water service to be applied shall be formed. 12-month period has been taken as the basis for calculating the prices for the reason that it would be possible for the CA to verify the accuracy of the information submitted by the company (CA can check the annual accounts of the companies, i.e. 12-months' information, from the Central Commercial Register) and to assess on the basis thereof among others also the accuracy of the forecasts prepared by the water undertaking and thereby also the accuracy of the costs, cost of capital and return that serve as the basis for calculating the price of water service. 12-month period **at the same time does not mean** that the prices of water service **should apply for 12 months**. The costs forecasted for 12 months serve as the basis for calculating the price. At the same time, when the company finds that the costs, cost of capital or justified return that serve as the basis for the approval do not anymore cover the list of PWSSA §14 (2), then it can come back to approve the price again on the basis of the data of the following 12 months. Thus the regulation period used by the CA is in every way compliant with the law and justified.

Based on the above and following PWSSA §14² (1), the CA shall analyze the price of water service formed by ASTV for 2011 as applied by ASTV, taking as the basis for that the costs, cost of capital and justified profitability of the regulation period (12 months).

4. Sale volumes and water losses

4.1 Sale volumes

It is important to assess the sale volumes, because water tariff is calculated by dividing the allowed sale revenue of the respective water service by sale volume. The lower the sale volume, the higher is the water tariff.

Sales volumes provided by ASTV in the Tariff Application: volume of water extracted 17,916 th m³ , incl. physical persons 13 868 th m³ and legal persons 4 047 th m³ and the volume of discharging waste water 18,139, incl. physical persons 13 681 th m³ and legal persons 4 458 th m³.

CA's position regarding the sale volumes applied for.

ASTV has also differentiated the volume of fire fighting water among from its services provided, which has been 2 th m³ per annum throughout the years (2008-2010). The CA is hereby drawing the attention to the fact that fire fighting water is the same kind of water as the water consumed by physical and legal persons, i.e. fire fighting water is treated in the same way as the water consumed physical and legal persons and therefore it is not correct to separate the volume of fire fighting water from the volume of other water. **Fire fighting water is also extracted from the water network and therefore ASTV is obliged to include the volume of fire fighting water in the water volume**, despite that the Tallinn and Saue City Governments pay for fire fighting water. However, the maintenance cost of fire water hydrants is not the cost of the service approved by the CA and Tallinn and Saue City Governments pay ASTV for that. The named costs must also be differentiated from the costs incurred for providing water service.

In the Tariff Application, ASTV has differentiated the cost of fire fighting water with the domestic tariffs and the maintenance cost of hydrants from the price of extracted water and wastewater discharge and treatment service. As ASTV has followed a principle in the Tariff Application, where fire fighting water is sold to the city government by the price of water meant for physical persons (the service is first of all meant for ensuring the safety of physical persons, for which the City of Tallinn pays for as a legal person), the CA shall not request the inclusion of the volume of fire fighting water in the volume of extracted water.

Pursuant to the article 4.1 of the Guidelines, whilst forecasting the sale volumes of water services, the CA analysed ASTV's actual historic indicators and the dynamics of the number of consumers. CA compiled a table (Table 4

Table) based on the data submitted by the company, reflecting the sale volumes of water services in 2008 – 2011.

Table 4 Data that serve as the basis for assessing the sales volumes

Rea nr.	Tallinn and Saue city		2008	2009	2010	2011
1	Volume of extracted water physical persons	k'm ³	14 432	13 960	13 868	13 868
2	Variance compared to the previous year	%		-3,3	-0,7	0,0
3	Volume of extracted water legal persons	k'm ³	4 634	4 145	4 047	4 047
4	Variance compared to the previous year	%		-10,5	-2,4	0,0
5	Volume of extracted water	K'm ³	19 066	18 106	17 916	17 916
6	Variance compared to the previous year	%		-5,0	-1,0	0,0
7	Service of discharge and treatment of waste water, physical persons	K'm ³	14 102	13 708	13 681	13 681

8	Variance compared to the previous year	%		-2,8	-0,2	0,0
9	Service of discharge and treatment of waste water, legal persons	K'm ³	4 986	4 444	4 458	4 458
10	Variance compared to the previous year	%		-10,9	0,3	0,0
11	Service of discharge and treatment of waste water, total	K'm ³	19 088	18 152	18 139	18 139
12	Variance compared to the previous year	%		95,1	99,9	100,0
13	Consumers, physical persons	pcs	17 861	19 192	19 709	19 709
14	Consumers, legal persons	pcs	2 386	2 510	2 899	2 899
15	Total consumers	pcs	20 247	21 702	22 608	22 608
16	Variance compared to the previous year	%		7,2	4,2	0,0
17	Length of public water network	km	909	925	931	931
18	Consumers per the length of public water network	client*/km	22	23	24	24
19	Consumption per the length of public water network	m ³ /m	21,0	19,6	19,2	52,0
20	Length of public waste water network	km	1 213	1 269	1 263	1 263
21	Consumers per the length of public waste water network	client/km	16,7	17,1	17,9	17,9
22	Consumption per the length of public waste water network	m ³ /m	15,7	14,3	14,4	14,4
23	Consumers, physical persons	pcs	17 861	19 192	19 709	19 709
24	Consumers, legal persons	pcs	2 386	2 510	2 899	2 899
25	Total consumers	pcs	20 247	21 702	22 608	22 608
26	Water consumption per client	m ³ /client	942	834	792	792
27	Consumption of public waste water services per client	m ³ /client	943	836	802	802

Based on the Table (Table 4

Table), ASTV has planned the volume of water to be extracted in 2011 for both physical and legal persons to be on the same level with 2010 (Table 4 lines 2, 4). Water consumption per one customer has decreased year on year, decreasing in from 942 m³ per customer in 2008 to 792 m³ per customer in 2010 (Table 4 line 26). In 2011, ASTV has planned the decrease in sale volume per customer to stop (Table 4 line 26). ASTV has justified the decrease in consumption during previous years with an economic recession and the use of sanitary equipment that enables a more optimum use of water.

CA has assessed and analysed the volume of water consumption forecasted by ASTV regarding both the physical persons (4 047 th m³) and legal persons (13 686 th m³) based on the dynamics of the sale volume and the dynamics of the number of consumers (Clause 4.1 of the Guideline) and came to a conclusion that:

- **As the consumption volume has decreased both in 2009 and 2010, but for 2011 ASTV is still forecasting the sale volumes to stay on the same level of 2010,**
- **As ASTV has not planned any increase in the number of customers of public water network nor in the length of network for 2011,**

the water consumption volumes submitted for approval are justified.

The volume of the wastewater discharge and treatment services provided to physical persons have decreased in 2010 compared to 2008 (Table 4 line 8), however the volume of the wastewater discharge and treatment services provided to legal persons has gone through a slight increase in 2010 (Table 4 line 10). ASTV has not planned any increase in the number of customers for 2011 (Table 4 line 25) nor in the length of public waste water network (Table 4 line 20).

CA, having assessed and analysed the volume of wastewater discharge and treatment service forecasted by ASTV for both legal persons (4 458 th m³) and physical persons (13,681 th m³) based on the dynamics of sale volumes and the dynamics of the number of consumers (article 4.1 of the Guidelines), has come to the conclusion that:

- As the consumption volume has decreased in 2010 compared to the previous years for physical persons (form most of the consumption volume), however, for 2011 ASTV is forecasting the sale volumes to stay on the same level than that of 2010,
- As the consumption of legal persons has seen a slight increase in 2010 compared to the previous year and in 2011 ASTV has forecasted it to stay on the same level than that of 2010,
- As ASTV has not planned any increase in the number of customers of public waste water network nor in the length of network for 2011,

the volumes of the service of leading off and purifying wastewater submitted for approval are justified.

4.2 Water losses.

ASTV forecast regarding water losses is 23,8%.

CA's position regarding water losses.

Under water losses the CA means the difference between water volumes given to the network and water sold and used for own purposes.

Water loss characterises amongst other things also the technical conditions of the water network. This category includes water leakages, differences stemming from the inaccuracies of water meters, possible inaccuracies caused by standardisation, water taken through illegal connections or commercial losses.

CA is considering included in the water used for own consumption, volume of extracted water used by the water undertaking for carrying out maintenance, also in case of planned and unplanned water extraction from the public water network, but which is measurable and which is not included in water losses. The water used for own consumption does not include the water extracted for fire fighting purposes nor the volume of water that the water undertaking uses for other purposes (e.g. in office space). The water for own consumption is not accounted within the volume of sold water.

Water loss calculated based on the data submitted by ASTV forms 23.8 % of the water given to the network.

Assessing water losses is important, because in the first instance those influence:

- 1) Cost of electricity (the lower the water losses, the less electricity is used for pumping water and for treating drinking water);
- 2) Cost of chemicals (the lower the water losses, the lower is the cost of chemicals);
- 3) Cost of environmental charges (the lower the water losses, the less charges on water resource and pollution need to be paid);

The size of a water loss depends highly on the weather. The colder the winter, the higher the probability for the freezing of ground and for the moving of ground surrounding pipes caused thereby, which in turn may cause the water pipes to burst and water losses to increase.

The age, construction quality and material of the pipes are also of significant importance in terms of the causes of water losses.

Based on the materials submitted by ASTV, the CA has compiled the following table (see Table 5).

Table 5

Tallinn and Saue City		2008	2009	2010	2011
------------------------------	--	------	------	------	------

Fire fighting water	K'm ³	2	2	2	2
Own consumption-networks and pumping stations	K'm ³	241	437	461	461
Metering error	K'm ³	482	468	482	482
Water input	K'm ³	24 096	23 398	24 104	24 104
Total volume of sold water	K'm ³	19 068	18 108	17 918	17 918
Consumption of metered water	K'm ³	19 309	18 545	18 379	18 379
Water loss (metered by the consumption)	m ³	4 787	4 853	5 725	5 725
Water loss (metered by the consumption)*	%	19,9	20,7	23,8	23,8

* Water loss also includes the metering error

It appears from the table (last row in Table 5) that ASTV's water losses have increased from **19.9%** in 2008 to **23.8%** in 2010.

The CA deems the increase of water losses to 23.8% as forecasted by ASTV as justified and finds that it is based on objective reasons, because 2010 winter had again lower than average decrees below Celsius over decades.

The above does not mean that any further increase in water losses would be acceptable without a reasonable excuse, because the company must find possibilities for managing and reducing the water loss.

5. Components of the prices of water service and income statement

Pursuant to the article 2.15 of the Guidelines, the operating expenses are justified costs to be included in the price, which do not include capital cost and financial cost. Pursuant to the article 4.2 of the Guidelines, the costs incurred by the undertaking are divided into controllable and uncontrollable. Below the CA is going to provide its opinion on the justifiability of the operating expenses divided to the water services in Tallinn and Saue City as forecasted in the Tariff Application according to the co-effect of the articles 2.15 and 4.12 of the Guidelines. In order to simplify the analysis, the data on operating expenses submitted by ASTV have been grouped as follows:

- uncontrollable costs;
- controllable costs;
- costs of bad debts.

5.1 Uncontrollable costs

According to Guidelines article 4.4, uncontrollable costs are those that cannot be affected by the undertaking's operating activities, but are completely dependent on external factors beyond the undertaking (primarily legislative). In ASTV's case, uncontrollable costs are e.g. legally established environmental tax rates.

Guidelines article 4.5 stipulates that uncontrollable costs are completely included in the water tariff and therefore the CA verifies the principles for calculating uncontrollable costs. *For example: the pollution charges established in the law are the basis for cost calculations, but the undertaking must justify pollution loads.*

The CA has developed a questionnaire „Table F. Environmental tax and Table B. P&L accounts“ for evaluating the justification of uncontrollable costs by water undertakings that apply for different water

service tariffs in different wastewater collection areas or provide services to other water undertakings as ASTV does.

The uncontrollable costs of ASTV attributed to Tallinn and Saue water services in the sum of 3 126 th € (48 910 th EEK):

- Water resource tax for Tallinn and Saue City 819 th € (12 853 th EEK);
- Pollution tax for Tallinn and Saue cities 2 307 th € (36 093 th EEK).

ASTV has submitted to CA data on uncontrollable costs in 2008-2010 in the 03.12.2010 file „2010-12-02 reply to CA re their reply re ASTV’s tariff application Annex 2-8.xlsx“; Table F. Environmental tax, Appendix 6. Environmental Tax 2008-2010“. The predicted uncontrollable costs have been submitted by ASTV in the 14.01.2011 letter nr 6/1063852-10 in the file „2011-01-14 vastus Konkurentsiametile Lisad.xlsx“, Appendix 1. Revenue and costs 2008-2011. ASTV has corrected the aforementioned data in the file „2011-02-16 vastus KA-le Lisad“; Appendix 2. Environmental tax appended to the 16.02.2011 letter nr 6/1103534-4 and also additionally in an e-mail sent to the CA on 21.02.2011.

The CA will now give its evaluation of the uncontrollable costs applied for by ASTV for the water services in Tallinn and Saue as divided into environmental taxes.

5.1.1. Fee for the special use of water

Pursuant to article 4.5 of the Guidelines the fee for the special use of water will be completely included to the price of water service, however, the undertaking must justify the water volumes to be taxed with fee for the special use of water.

The fee for the special use of water of ASTV included in the price of water service to Tallinn and Saue in the sum of 819 th € (12 853 th EEK).

CA’s position on the fee for the special use of water of 819 th € (12 818 th EEK) to be included in the Tallinn and Saue water tariff.

ASTV has submitted to the CA the calculation of the undertaking’s fee for the special use of water for 2010 (Table 6), considering the water volumes to be taxed with the fee for the special use of water and the rates of the fees for the special use of water as established in the §1 of the Government of the Republic Decree⁹ based on Environmental Charges Act §10 (1) (hereinafter ECA).

Table 6 Formation of the fee for special use of water in 2010

Rea nr	liik	Piirkond	Tasubik	Tasumäär		Kogus kokku	loaga*	Vee erikasutusõiguse tasu kokku	
				krooni	€			tuh kr	tuh €
	A	B	C	D	E	F	G	H	I
2010									
1	vee erikasutus	HA0132, HA1106, HA0382, HA0228, TL0687	E-V	1,056	0,0675	2 975 790	2 975 790	3 142	201
2	vee erikasutus	HA0132, TL0687	O-E	0,946	0,0805	476 284	476 284	451	29
3	vee erikasutus	TL0687	veekogud	0,44	0,0281	20 457 012	20 457 012	9 001	575
4	KOKKU					23 909 087	23 909 087	12 594	805

*Loaga = With permit for special use of water (As a rule the permit for the special use of water is issued by the environmental service of the area. Permit for the special use of water on sea is issued by the Ministry of

⁹ Rates of fee for the special use of water for water extraction from water body or ground water aquifer

Environment, except when wastewater or other polluting substances are directed into the sea. Clause 2.2 of Annex "Issuing permits for special use of water" to the Order No 1126 of 19 November 2004 of the Minister of Environment)

The table (Table 6 row 4) reveals that ASTV paid 805 th € (12 594 th EEK, Table 6 row 4 column I) in fees for the special use of water in the volume of 23 909 087 m³ in 2010. The proportion of the total ASTV's fee for special use of use water attributed to Tallinn and Saue City water tariffs in 2010 is 745 th € (11 652 th kr) or 92.547% (745/ 805 (Table 6 row 4) x 100% = 92,547%).

In order to verify the justified free for the special use of water in the price of water service applied:

- The CA replaced the rates for the fee for special use of water valid in 2010 with rates valid in 2011 (Table 7 column D) as compared to 2010 the fees for special use of water have increased.
- Took as the basis the water volumes taxed with the fee for special use of water in 2010 (Table 7 column E) in Tallinn and Saue City, as in 2011 ASTV has planned all the water consumption in the same volume as in 2010.

Table 7 Fee for special use of water included in the price of water service applied

Rea nr	liik	Püirkond	Tasuliik	Tasumäär		Kogus kokku	loaga*	Vee erikasutusõiguse tasu kokku	
				krooni	€			tuh kr	tuh €
				A	B			C	D
2010									
1	vee erikasutus	HA0132, HA1106, HA0382, HA0228, TL0687	E-V	1,056	0,0675	2 975 790	2 975 790	3 142	201
2	vee erikasutus	HA0132, TL0687	O-E	0,946	0,0605	476 284	476 284	451	29
3	vee erikasutus	TL0687	veekogud	0,44	0,0281	20 457 012	20 457 012	9 001	575
4	KOKKU					23 909 087	23 909 087	12 594	805

*Loaga = With permit for special use of water (As a rule the permit for the special use of water is issued by the environmental service of the area. Permit for the special use of water on sea is issued by the Ministry of Environment, except when wastewater or other polluting substances are directed into the sea. Clause 2.2 of Annex "Issuing permits for special use of water" to the Order No 1126 of 19 November 2004 of the Minister of Environment)

From ASTV's total fee for special use of water of 885 th € (Tabel 7 row 4 column H), the CA considers it justified to include into the price of water service of Tallinn and Saue the same proportion of the fee for special use of water that ASTV has included in 2010, i.e. 92.547% which is 819 € (Table 7 last column's row 4: 885 x 92,547% /100% = 819 €). The reason is the fact that in 2011 the water volumes have been planned the same as in 2010.

CA is of the position that since the fee for special use of water applied for 2011 by ASTV in the sum of 885 th € (13 853 th EEK), including 819 th € (12 818 th EEK) for water services provided to Tallinn and Saue City, matches the respective total cost amount established by CA in its verification calculations, then the CA regards in the Tariff Application submitted by ASTV the fee for the special right to use water in the sum of 885 th € (13 853 th EEK) from which 819 th € (12 818 th EEK) is attributable to Tallinn and Saue City, as justified.

5.1.2. Pollution tax

Water undertaking has several legal obligations for preventing the overpollution of the environment. E.g. pursuant to PWSSA §10 (1) the water undertaking must ensure the functioning and maintenance

of the public water supply and sewerage system in its operating area. Treating wastewater is the obligation of the water undertaking, but this above all pursuant to the Water Act, i.e. this is its obligation in public law. Water undertaking is obliged to acquire the permit for the special use of water (Water Act §8) and to pay pollution tax as an environmental tax when polluting the water body (ECA §3, 5, 17, 20, 24). In general there are no environmental obligations for treating wastewater for the customers resulting from discharging wastewater to the sewerage system (when complying with public requirements), i.e. it does not have any additional obligations, if the water undertaking does not treat its wastewater, however, the water undertaking is held liable.

In order to restrain environmental pollution, the state has established with the Environmental Charges Act environmental taxes for the polluters, incl. pollution tax must be paid as environmental charge for discharging pollutants into water body or ground water (ECA §3 (2) clause 6, §5 (1), §14 (1), §17, §20, §24). The aim of applying environmental charges is pursuant to ECA §4 (1) to prevent or reduce the possible damage of discharging pollutants to the environment. On the basis of Water Act §15 (2) and §24 (2) the requirements for the treatment of wastewater have been established with the Regulation No 269 of the Government of the Republic of 31.07.2001 "Procedure for discharging wastewater into water bodies or soil". Pursuant to §5 (1) of this regulation pollution indicators of the wastewater discharged into water bodies shall comply with the pollution limit values or degrees of treatment provided in Appendix 2 of the Regulation. The choice of limit values or degree of treatment depends on the need for environmental protection and economic considerations, which will be set by the issuer of the permit for special use of water. Proceeding from the above, the requirement of wastewater treatment shall be established with the permit for the special use of water depending on the sensitivity of the recipient. Based on the information submitted to the CA by the Ministry of Environment on 14.04.2011, with the EU Directive concerning urban wastewater treatment 91/271/EEC (hereinafter the Directive) the requirement of the nitrogen treatment efficiency of 70% has been set for ASTV, but the members states of the EU can set stricter requirements than these of the directive pursuant to the characteristics of the area if these prove to be necessary from the environment protection perspective. The directive sets out in addition to the requirement of treatment efficiency also the possibility of implementing a concentration-based limit value, which is also applied for ASTV, by establishing for ASTV the limit value of 10 mg/l (more than 100 000 population equivalents) for nitrogen (N).

Pursuant to the permit for the special use of water No L.VV.HA-171414 issued to ASTV a limit value of 10 mg/l has been established for total nitrogen, which serves as the basis for assessing the compliance of the wastewater treatment of the water undertaking, as the permit for the special use of water does not provide an opportunity to use the degree of treatment for ASTV. If the water undertaking's concentration of wastewater with regard to total nitrogen is more than 10 mg/l, then the water undertaking's wastewater does not comply with the established requirements and the water undertaking is obliged to pay higher pollution tax for overpolluting the environment. From the response by the Ministry of Environment of 14.04.2011 to the CA it appears that the liability of paying higher pollution tax characterises the non-compliance of the activity of the water undertaking with the law. §24 (4) of the ECA sets an exception only in case when due to weather conditions the temperature of wastewater in the wastewater treatment plant reduces below 12 degrees. In such a case the technological possibilities for reducing the total nitrogen in wastewater are limited and the higher pollution tax shall not be applied in calculating the pollution tax for total nitrogen.

For analysing the justifiability of the pollution tax to be included in the price of water service, pursuant to §5 (1) of the APA (the CA has the right to establish the form of the proceeding process on the basis of discretionary power), the CA has developed and published on its website the price application form or a Questionnaire in the form of Excel tables. On page „Tabel F. Keskkonnatasud“ of this questionnaire there is a table that the water undertaking is obliged to fill in and that serves as a justification from the undertaking regarding the pollution taxes in the price of water service. „Tabel F. Keskkonnatasud“ has been developed on the basis of the forms regarding pollution tax that the water undertakings submit to the state on a regular basis (forms were sent to the CA by the Ministry of Environment).

Cost of pollution tax is formed when the pollution tax rates established in ECA are applied to the pollution volumes (several various types).

Fee for the pollution tax included by ASTV in the price of water service to Tallinn and Saue in the sum of 2 307 th € (36 093 th EEK).

CA's position on the pollution tax included in the Tallinn and Saue water services in the sum of 2 307 th € (36 093 th EEK).

When submitting the Tariff Application, ASTV failed to fill in page „Tabel F. Keskkonnatasud“ of the Questionnaire. To the respective inquiries by the CA ASTV pointed out that the pollution tax of 2 306 th € has been formed on the basis of the company's total pollution volumes of 2010 and the pollution tax rates set out in ECA for 2011, from which an equal proportion to 2010 has been included into the price of water service Tallinn and Saue.

Thus in order to verify the justifiability of the sum of the pollution tax to be included in the price of water service of 2011, the CA must first of all in detail analyse the pollution tax of 2010 and the justifiability thereof, because pursuant to the statements of ASTV, the pollution tax for 2011 has been formed on the basis of the calculation of pollution tax for 2010.

From the data submitted by ASTV it proceeds that in 2010 ASTV has paid pollution tax in the amount of 2 190,83 th € (34 279 th kr), incl. for Tallinn and Saue City 2 005,87 th € (31 385 th kr) or 91,559% (2005,87/2190,83 x 100% = 91,557%) from ASTV's total pollution tax.

ASTV has submitted explanations for the pollution tax of 2010, based on which the CA has prepared a table (Table 8 similar to the page „Tabel F. Keskkonnatasud“ of the Questionnaire), taking as the basis the volumes of water pollution (Table 8 row F) and the rates of pollution tax applied thereto in ECA (Table 8 row E).

Table 8 Pollution tax calculation 2010

Rida nr	liik	KOEK	Tavalik	Tasumäär 2010	Kogus kokku	Iaiga	üle loa	loata	EF. KOEF.	kokku		
										rub kr	rub €	
	A	C	D	E	F	G	H	I	J	K	L	
1	veesaate	1,2	BHT7	21 363,0	54	54		0	0,5	692	44	
2	veesaate	1,2	HA	5 399,0	125	125		0	0,5	406	26	
3	veesaate	1,2	P	43 879,0	10	10		0	0,5	260	17	
4	veesaate	1,2	NS	35 650,0	0	0		0	0,5	2	0	
5	veesaate	1,2	OA	179 400,0	0	0		0	0,5	22	1	
6	veesaate	1,2	N	21 988,0	174	174		0	0,5	2 301	147	
7	s.h temperatuuril alla 12°C	1,2	N	21 988,0	174	174		0	0,5	2 301	147	
8	veesaate	1,2	BHT7	21 363,0	128	128		0	1,0	3 277	209	
9	veesaate	1,2	HA	5 399,0	337	337		0	1,0	2 181	139	
10	veesaate	1,2	P	43 879,0	35	35		0	1,0	1 820	116	
11	veesaate	1,2	NS	35 650,0	1	1		0	1,0	36	2	
12	veesaate	1,2	OA	179 400,0	1	1		0	1,0	283	18	
13	veesaate	1,2	N	21 988,0	34,79		34,79	0	10,0	9 178	587	
14	veesaate	1,2	N	21 988,0	443	443		0	1,0	12 056	771	
15	s.h temperatuuril alla 12°C	1,2	N	21 988,0	190	190		0	1,0	5 003	320	
16	veesaate	1,5	BHT7	21 363,0	0	0		0	1,0	6	0	
17	veesaate	1,5	HA	5 399,0	1	1		0	1,0	11	1	
18	veesaate	1,5	P	43 879,0	0	0		0	1,0	1	0	
19	veesaate	1,5	NS	35 650,0	0	0		0	1,0	0	0	
20	veesaate	1,5	N	21 988,0	0	0		0	1,0	5	0	
21	KOKKU									32 537	2 080	
22	ASTV 21.02.11 selgitustest tulenevalt lisandub saastetasule ka tulumaks real 13 kajastatud kõrgendatud saastetasumäära rakendamise										1741,65	111
23	KOKKU									34279,04	2190,83	

The table (Table 8 row 21) reveals that ASTV has paid 2 080 th € (32 537 th kr: Table 8 row 21 column L) in pollution tax for water pollution in 2010, incl. 587 th € (9 178 th kr: Table 8 row 13 column L) from the nitrogen amount pursuant to ECA §24 (1), applicable if pollutants have been released to a water body, ground water or soil in larger quantities and concentration than allowed. In

this case in addition to the pollution tax of 2080 th € referred to in the table (Table 8 row 21 column L) the company has had to pay also income tax (calculated into the price of water service in the extent referred to in Table 8 row 22 or 111 th €; Income Tax Act (hereinafter ITA) §51 (1); ITA §51 (2) clause 1; ITA §34 clause 6), because pollutants have been released to a water body, ground water or soil in larger quantities and concentration than allowed (ECA §24 (1)).

CA regarded in the price of water service as justified all the pollution taxes included in the calculation of the 2010 pollution tax by water pollution (Table 8 column “D”) **except pollution tax from the volume of nitrogen, proceeding from ECA §24 (1)** (Table 8 row 13 column L) **in the amount of 587 th € + 111 th €** (111 th € is income tax that the company paid because the undertaking’s concentration of wastewater for total nitrogen was higher than that marked on the permit for special use of water). CA did not find it justified to include sums paid for pollution loads taxed with higher pollution tax rates based on ECA §24 (1) in the price of water service (587 th € + income tax from this amount of 111 th €, which the undertaking paid because the undertaking’s concentration of wastewater for total nitrogen was higher than that marked on the permit for special use of water), because this cost has arisen due to the fact that the undertaking did not treat wastewater in the required extent, which can be regarded as the negligence of the water undertaking (confirmed by the respective information request received from the Ministry of Environment on 14.04.2011). If ASTV has paid for nitrogen pollution loads at higher pollution tax rates as specified in ECA §24 (1), then this indicates to the insufficiency of the environmental investments by the company. CA cannot accept including pollution loads taxed with a higher pollution tax rate in the price of water service. If CA accepted pollution loads taxed with a higher pollution tax then it would take away from the undertaking the motivation to invest into reducing environmental pollution, because the consumer would have to pay for the resulting costs. If CA does not find it justified to include pollution loads taxed with a higher pollution tax rate in the price of water service, then this shall motivate the water undertakings to invest into eliminating pollution loads that are taxed with a higher pollution tax rate and complying with Estonian environment protection legislation.

If to rest on the statement of ASTV that the pollution taxes for 2011 have been formed taking into account the pollution tax rates of 2011 and the pollution loads of 2010 (Table 8 column “F”), then it was not justified to include into the price of water service the pollution tax loads of 2010 that were taxed **with a higher pollution tax rate set in ECA §24 (1)**.

On 28.02.2011 the CA informed ASTV in the analysis that as the company has included into the price of water service the sums payable for the pollution loads taxed on the basis of higher pollution tax rates on the basis of ECA §24 (1), then the CA could not regard as justified **the pollution tax in the sum of 2 519 th € (39 421 th kr), incl. to Tallinn and Saue City 92% or 2 307 th € (36 093 th kr) in the price of water applied.**

Additionally, based on §40 (1) of the APA, the CA gave ASTV an opportunity to present its objections in writing to the position included in the analysis prepared by the CA on 28.02.11.

In the response sent by ASTV on 29.03.2011, ASTV submitted several questions, the responses to which are pointed out in this resolution. Also, ASTV informed that it is justified to include the pollution tax paid on the nitrogen volumes subject to taxation on the basis of higher pollution tax rates into the price of water service because:

- Nitrogen load is an unmanageable cost for ASTV due to the weather conditions of Estonia, where the low temperature reduces the efficiency of nitrogen removal;
- Due to the unpredictable nature of precipitation that may reduce the efficiency of nitrogen removal, the failures in wastewater treatment process conditioned by "*force majeure*" have been left for the water undertaking to carry;
- As such the principle of “polluter pays” is justly implemented;
- ASTV’s results for the nitrogen volumes subject to taxation on the basis of higher pollution tax rates have improved year-after-year;

- The respective approach by the CA regarding not including in the price of water service the pollution tax taxed with higher pollution tax rate as per ECA §24 (1) came unexpectedly for ASTV and ASTV is not able to perform the respective investments that quickly.

On 29.03.2011 ASTV also informed that it has not performed the pollution tax calculation for 2011 in the form required by the CA as the pollution taxes are unpredictable and it agrees to submit the respective forecasts only in case the CA provides the respective inputs.

In conclusion ASTV recommends the CA in forming the price of water service to proceed from what is reflected in the Services Agreement.

CA's final position regarding the pollution tax of 2 307 th € (36 093 th kr) to be included in the price of water service by ASTV.

In connection with the response sent to the CA by ASTV on 29.03.2011, the CA submitted an inquiry to the Ministry of Environment in which it asked for their position regarding the objections by ASTV regarding including pollution tax into the price of water service. Proceeding from the abovementioned, in forming its final position regarding pollution tax, the CA has, among others, proceeded from the response received from the Ministry of Environment on 14.04.2011, in connection to the positions submitted by ASTV to the CA on 29.03.2011.

ASTV's statement that the nitrogen load is an unmanageable cost for ASTV due to the low temperature of Estonian climate is not correct because ECA §24 (4) establishes an exception in case due to weather conditions the temperature of the wastewater of the wastewater treatment plant reduces to below 12 degrees. In such a case the technological possibilities for reducing the total nitrogen in wastewater are limited and the higher pollution tax shall not be applied in calculating the pollution tax for total nitrogen. Thus ASTV's statement that the application of higher pollution tax is inevitably in connection with weather conditions is not justified.

It is also wrong to state that the failures in wastewater treatment process conditioned by "*force majeure*" have been left for the water undertaking to carry when the higher pollution tax is not included in the price of water service. CA turns attention to the fact that pursuant to §5 (6) of the ECA the environmental charge is not collected if the use of natural resources, emission of pollutants into the environment or disposal of waste without an environmental permit or in a quantity exceeding the allowed quantities: 1) is carried out to prevent damage on an even larger scale than the damage caused by such activity; 2) is carried out to prevent an accident which may cause loss of human life; 3) is caused by a natural disaster or carried out to eliminate the results of a natural disaster.

In the abovementioned instances the resolution regarding the release of payment of environmental charges shall be made by the Minister of Environment on the basis of a justified application of the payer.

Also, the statement by ASTV as if the flow volume increasing due to weather conditions impacts the pollution load discharged to the recipient. In case it is clean storm water then its accrual does not increase the pollution load in the outflow (rather dilutes wastewater), hydraulic load increases, which is not subject to taxation (confirmed by the letter of the Ministry of Environment of 14.04.2011).

In the provision of public water supply and sewerage services an important keyword is the implementation of the "polluter pays" principle. ASTV has not used this abovementioned principle in its objections correctly. Implementation of "polluter pays" principle means that each person (both the water undertaking as well as the customer of the water undertaking) must compensate for the damage caused to the environment. All customers of the water undertaking who use the service of wastewater discharge cause load to the environment when discharging wastewater to the environment. In the letter sent by the Ministry of Environment on 14.04.2011 it is marked that the rates of discharging pollutants to the environment have been established for implementing the "polluter pays" principle, but the higher pollution tax is applied only in case the obligations prescribed by law have not been fulfilled. The letter sent by the Ministry of Environment also points out that the specific obligations of the water

undertaking (incl. those regarding wastewater treatment) have been established with the permit for special use of water and if the activity of the water undertaking does not correspond to the requirements listed in the permit for the special use of water, then the water undertaking, thus ASTV, who did not treat wastewater in the prescribed extent, is liable for it. The obligations of the customer of the water undertaking have been set in the rules of use of public water supply and sewerage system and the services contract between the water undertaking and the customer. If the customer of the water undertaking does not meet the requirements listed in the abovementioned documents, then the fines resulting from the PWSSA shall be applied to the customers of the water undertaking and only for this customer who did not meet the requirements (not to water undertaking). From the above, the implementation of the “polluter pays” principle means that higher pollution tax is paid only by a person who has not met the requirements set for him/her with the law, i.e. in this case ASTV.

The statement by ASTV that the quality of wastewater treatment has improved year-after-year is not a reason for including the higher pollution taxes resulting from ECA §24 (1) to the price of water service. Although ASTV’s wastewater treatment indicators have improved, they have not improved to the required level that would prevent the payment of the higher pollution tax resulting from ECA §24 (1) for overpolluting the environment. A certain improvement of these indicators cannot be a reason for including the negligence of the water undertaking for consumers to bear (through the price of water service), as it is not in the power of the consumers to impact the activities of the water undertaking in the field of wastewater treatment. This position is also confirmed by the position received from the Ministry of Environment on 14.04.2011. Pursuant to PWSSA §10 (1) the water undertaking must ensure the functioning and maintenance of the public water supply and sewerage system in its service area. Thus it is the obligation of the water undertaking to deal with wastewater treatment and through respective investments to ensure the delivery of the environmental objectives set out in the law. It is irresponsible to implement the “polluter pays” principle in a manner that the failure of wastewater treatment as per requirements and the fee paid for overpolluting the environment in relation to that is included in the price of water service because consumers cause pollution. At the same time consumers cannot interfere in any way with regard to wastewater treatment. The obligation to treat wastewater does not lie with the consumer but with ASTV.

It has been irresponsible from ASTV not to perform investments that would prevent overpolluting the environment already earlier, i.e. already four years ago (ASTV has submitted data to the CA from which it appears that with regard to nitrogen higher pollution tax for overpolluting the environment has been paid also in the four previous years). CA considers it in every way justified if all investments, which ensure the treatment of wastewater in the extent where a higher pollution tax for overpolluting the environment do not apply to the water undertaking, are included in the price of water service. This position cannot be news for the water undertaking, which is why the CA does not agree with making an exception and including the fee paid for overpolluting the environment into the price of water supply until the undertaking has not made investments that would avoid overpolluting the environment. ASTV has not submitted to the CA the investment plan that would enable to reduce polluting the environment in the extent where a higher pollution tax for overpolluting the environment would not apply to the water undertaking.

PWSSA §14 (2) provides a cost-based price for water service, which is why the CA cannot consider it justified to form the price of water service proceeding from the tariff principle agreed in the Services Agreement between ASTV and the City of Tallinn without knowing and analysing the costs included in the price of water service in detail.

Proceeding from the principles pointed out in PWSSA §14 (2), PWSSA §14² (7) and ECA and Water Act, the CA cannot consider as justified including in the price of water service the pollution tax of 2 307 th € (36 093 th kr), which includes the sums paid on the basis of ECA §24 (1) and the income tax paid on that sum, subject to not meeting the requirements reflected in the permit for special use of water by the water undertaking with regard to wastewater treatment.

5.2 Controllable costs

Pursuant to article 4.3 of the Guidelines, the controllable costs are the costs that the undertaking may influence through a more efficient economic activity (e.g. labour costs, transport costs, other operating costs).

ASTV has submitted to the CA data regarding operating costs in years 2008-2011 with the letter No 6/1063852-10 of 14.01.2011 in the file "2011-01-14 vastus Konkurentsiametile Lisad.xlsx", Lisa 1. Tulud ja kulud 2008-2011. The assumptions of the changes in percentages of the forecasted costs have been submitted to the CA on 03.12.2010, with ASTV's letter No 6/1063852-2 of 02.12.2010, "LISA 1 FINANTSTABELID, Tabel 2. Peamised kulu- ja tulueeldused 2011-2015".

The CA assesses the justifiability of the controllable operating costs on the basis of the Questionnaire „TABLE B. Income Statement”.

On the basis of the submitted data, for the financial year 2011 ASTV forecasts controllable costs in the amount of 15 833 th € (247 729 th kroons), incl for the cities of Tallinn and Saue 14 154 th € (221 463 th kroons).

Controllable costs included in the price of water service by ASTV in Tallinn and Saue City 14 154 th € (221 463 th kroons).

On the basis of the submitted data, for the financial year 2011 ASTV forecasts controllable costs in the amount of 15 833 th € (247 729 th kroons), incl for the cities of Tallinn and Saue 14 154 th € (221 463 th kroons).

CA's position regarding controllable costs

In the analysis of the undertaking's costs the CA uses observing the dynamics of costs in time and the comparison thereof with the dynamics of the CPI. As ASTV's costs include a modest proportion on factors that are influenced by so-called world market prices, then the majority of these are stable cost components that are also of fixed nature. Therefore it is appropriate to compare the costs of ASTV as well as the costs divided to Tallinn and Saue City with the changes to the CPI¹⁰, because the change in stable cost components mostly depends on inflation, i.e. the change in CPI.

The CA has prepared a table (Table 9) on the basis of the data submitted by ASTV, both in kroons and euros, for analysing the controllable costs of ASTV and Tallinn and Saue City.

Table 9 Controllable costs

¹⁰ Forecast of CPI for 2011: 2.5%. Economic forecast by the Ministry of Finance in summer 2010, 25.08.2010

Rra nr	Kontrollitavad kulud kroonides	2008			2009			2010			2011		
		ASTV tuh kr	Tallinn & Saue tuhkr	kulu osakaal ASTV kaheldest %	ASTV tuh kr	Tallinn & Saue tuhkr	kulu osakaal ASTV kaheldest %	ASTV tuh kr	Tallinn & Saue tuhkr	kulu osakaal ASTV kaheldest %	ASTV tuh kr	Tallinn & Saue tuhkr	kulu osakaal ASTV kaheldest %
A	B	C	D	E	G	H	I	J	K	L	M	N	O
1	Elektrenergia kulu	29 750	28 120	95%	33 423	31 278	94%	42 666	37 697	88,36%	49 083	43 351	88%
2	Kemikaalide kulu	22 841	21 589	95%	20 082	18 793	94%	20 613	18 589	90,18%	21 386	19 286	90%
3	Raamendi-ja hoolduskulud	20 056	18 579	93%	19 248	17 502	91%	23 701	19 575	82,61%	22 704	20 343	90%
4	Materjalid	4 905	4 544	93%	6 016	5 471	91%	6 940	6 196	89,28%	7 083	6 351	90%
5	Tarnepordikulud	21 558	19 930	92%	19 139	17 403	91%	20 728	18 504	89,28%	21 168	18 967	90%
6	IT & sidekulud	5 826	5 397	93%	5 485	4 988	91%	4 437	3 961	89,28%	4 531	4 060	90%
7	Kindlustuskulud	2 897	2 683	93%	2 802	2 557	91%	2 368	2 114	89,28%	2 418	2 167	90%
8	Koolituskulud	1 104	1 023	93%	1 170	1 064	91%	1 843	1 646	89,28%	1 882	1 687	90%
9	A- ja kontuultantsi teenused	11 814	10 944	93%	13 821	12 568	91%	20 626	18 415	89,28%	21 066	18 875	90%
10	Muud rahnemargad	17 440	16 164	93%	16 640	15 130	91%	17 403	15 538	89,28%	18 440	16 571	90%
11	Mitmesugused tegevuskulud kokku	138 209	129 023	93%	137 844	126 762	92%	159 317	142 033	89,152%	159 780	142 658	89%
12	Täiõukulud	88 422	81 911	93%	95 177	86 546	91%	86 114	76 883	89,281%	87 949	78 805	89,603%
13	Kontrollitavad kulud kokku	226 632	210 934	93%	233 021	213 308	92%	245 430	218 916	89,197%	247 729	221 462	89,397%
14	Muud kontrollitavad kulud kokku	108 450	100 894	93%	104 422	95 485	91%	116 656	104 337	89,440%	110 692	99 307	89,714%

Rra nr	Kontrollitavad kulud eurodes	2008			2009			2010			2011		
		ASTV tuh €	Tallinn & Saue tuh €	kulu osakaal ASTV kaheldest %	ASTV tuh €	Tallinn & Saue tuh €	kulu osakaal ASTV kaheldest %	ASTV tuh €	Tallinn & Saue tuh €	kulu osakaal ASTV kaheldest %	ASTV tuh €	Tallinn & Saue tuh €	kulu osakaal ASTV kaheldest %
A	B	C	D	E	G	H	I	J	K	L	M	N	O
1	Elektrenergia kulu	1 902	1 798	95%	2 136	1 996	94%	2 726	2 409	88,4%	3 137	2 771	88,31%
2	Kemikaalide kulu	1 460	1 380	95%	1 283	1 201	94%	1 317	1 188	90,2%	1 367	1 253	90,18%
3	Raamendi-ja hoolduskulud	1 282	1 187	93%	1 230	1 119	91%	1 387	1 238	89,3%	1 451	1 300	89,60%
4	Materjalid	313	290	93%	385	350	91%	444	396	89,3%	453	406	89,60%
5	Tarnepordikulud	1 378	1 235	90%	1 223	1 112	91%	1 325	1 183	89,3%	1 353	1 212	89,60%
6	IT & sidekulud	372	345	93%	351	319	91%	294	253	86,1%	290	259	89,30%
7	Kindlustuskulud	185	171	92%	180	163	91%	151	135	89,4%	155	138	89,03%
8	Koolituskulud	71	65	92%	75	68	91%	118	105	89,0%	120	108	89,60%
9	A- ja kontuultantsi teenused	755	699	93%	883	803	91%	1 318	1 177	89,3%	1 346	1 206	89,60%
10	Muud rahnemargad	1 113	1 033	93%	1 064	968	91%	1 112	993	89,3%	1 112	984	89,60%
11	Mitmesugused tegevuskulud kokku	8 833	8 246	93%	8 810	8 102	92%	10 182	9 078	89,2%	10 212	9 117	89,28%
12	Täiõukulud	5 651	5 235	93%	6 083	5 531	91%	5 504	4 914	89,3%	5 621	5 037	89,60%
13	Kontrollitavad kulud kokku	14 484	13 481	93%	14 893	13 633	92%	15 686	13 991	89,2%	15 832	14 154	89,397%
14	Muud kontrollitavad kulud kokku	6 931	6 448	93%	6 674	6 103	91%	7 456	6 668	89,4%	7 075	6 347	89,714%

Controllable costs of 14 154 th € (221 462 th kr) can be divided as follows:

Labour costs 5 037 th € (78 805 th kr)

Electricity costs 2 771 th € (43 351 th kr)

Other controllable costs 6 347 th € (99 307 th kr)

CA shall control the justifiability of the controllable costs and if all types of the controllable costs (labour costs, electricity costs, other controllable costs) are justified, then also the total controllable costs are justified.

5.2.1 Labour costs

Labour costs included by ASTV in the price of water service to Tallinn and Saue in the sum of 5 037 th € (78 805 th EEK).

CA's position on the labour costs included in the Tallinn and Saue water services in the sum of 2 5 037 th € (78 805 th EEK).

A significant proportion of 35% (Table 9 (in euros) line 13 column 2010: 5 504 / 15 686 (Table 9 (in euros) line 13 column 2010) x 100 = 35%) of the operating costs of ASTV in 2011 form labour costs. Regarding labour costs there has been an increase of altogether 7.6% in 2009 (Table 9 (in euros) line 12: 6 083/5 651 *100% - 100% = 7.6%) compared to 2008. Thus contrarily to the general salary decrease tendency that took place in the economy at the referred period, ASTV has increased the salaries of its employees. With regard to 2010 there has been a decrease in the labour costs compared to 2009 (in correlation with what took place in the economy) due to a reduction in the number of employees (from 322 to 307). From the above the CA concludes that ASTV has increased efficiency, which the CA regards to be positive, by rearranging its work with a lesser amount of employees. In the valid price of water service is a justified increase in labour costs, due to the increase in CPI, which is forecasted to be 2.5% compared to 2010. On the basis of the above, if in 2010 the labour costs in Tallinn and Saue City were 4 914 th € (Table 9 (in euros) row 12 column K), then in the valid price of water service, taking into account the increase in CPI, the justified labour cost is 5 037 th € (4 914 x 2,5 /100 + 4914 = 5 037 th € Table 9 (in euros) row 12 column N). **Based on the above, the CA considers as justified in the price of water service of Tallinn and Saue City the labour costs of 5 037 th € (78 805 th kr) or in the extent pointed out in the tariff application by ASTV.**

5.2.2 Electricity costs

Electricity costs included by ASTV in the price of water service to Tallinn and Saue in the sum of 2 771 th € (43 351 th EEK).

CA's position on the electricity costs included in the Tallinn and Saue water services in the sum of 2 771 th € (43 351 th EEK).

ASTV purchases electricity required in production processes at the price that forms on the open market, which is why it is understandable that there was a drastic increase of 28% in the electricity costs in 2010 compared to 2009 (Table 9 (in euros) row 1 columns "ASTV" respectively 2010 and 2009: 2 726 / 2 136 x 100- 100= 28%), when the market opened and the electricity cost for consumers who purchase from open market, which also include ASTV. As ASTV started to purchase electricity from open market only on 01.04.2010, the impact of the total price increase resulting from the opening of the electricity market does not appear so much in 2010 (transfer to open market took place in April, i.e. for 3 months electricity was still purchased with the closed market price), but rather in 2011 (increase in electricity purchase cost in 2011 compared to 2009 Table 9 (in euros) row 1 column N and H: 38,6 % : 2771/1 999 x 100%- 100% = 38,6%). ASTV's forecast of the electricity costs in 2011 is 3 137 th € (49 088 th kr), which refers to an assumption of an increase in electricity costs of 47% for the company (3 137 / 2 136 x 100 -100 = 47%) due to the opening of electricity market.

For assessing the electricity costs in the valid price of water service the CA takes into account the following circumstances:

- **In purchasing electricity ASTV has proceeded from the electricity provider who made the best offer.**
- **The price of the electricity offered by the electricity provider who made the best offer does not differ from the average electricity price forming on the open market.**

Based on abovementioned, the electricity cost in the sum of 2 771 th € (1 999 (Table 9 row 1 column 2009 „Tallinn ja Saue“) x 38,6% /100% + 1 999 = 2 771 th €) in the valid price of water service in Tallinn and Saue City are justified.

Thus the CA considers as justified in the price of water service of Tallinn and Saue City the electricity costs of 2771 th € (43 351 th kr) or in the extent pointed out in the tariff application by ASTV.

5.2.3 Other controllable costs

Other controllable costs included by ASTV in the price of water service to Tallinn and Saue in the sum of 6 347 th €.

CA's position on the other controllable costs included in the Tallinn and Saue water services in the sum of 6 347 th € (99 307 th EEK; controllable costs reflected in Table 9 row 14 without electricity costs and labour costs).

CA has prepared a table (Table 10) for the other controllable costs.

Table 10 Other controllable costs

Rida nr	Kontrollitavad kulud	2008			2009			2010			2011		
		ASTV	Tallinn & Saue	Tallinn & Saue kulu ASTV kuluist %	ASTV	Tallinn & Saue	Tallinn & Saue kulu ASTV kuluist %	ASTV	Tallinn & Saue	Tallinn & Saue kulu ASTV kuluist %	ASTV	Tallinn & Saue	Tallinn & Saue kulu ASTV kuluist %
A	B	C	D	E	G	H	I	J	K	L	M	N	O
1	Muud kontrollitavad kulud (rub. kr)	108 450	100 894	93,0	104 422	95 485	91,4	116 656	104 337	89,4	110 692	99 307	89,7
2	Muud kontrollitavad kulud (rub. €)	6931	6448	93,0	6674	6103	91,4	7456	6668	89,0	7075	6347	90,0
3	Kuluindeksite muutuse võrdluse näitaja koefitsient				-3,71	-5,36		11,72	9,27		-5,11	-4,82	
4	Indeksi muutus*				-0,1	-0,1		3,0	3,0		2,5	2,5	

* Data regarding CPI taken from the website of Statistics Estonia.

From table (Table 10) it can be concluded that the change in the other controllable costs has not happened in correlation with the change in CPI (Table 10 rows 3 and 4). Therefore when assessing the justified other controllable costs in the valid price of water service, the CA shall proceed from the principle that in 2008 (6 448 th € Table 10 row 2 column D) other controllable costs would exceed the change in CPI and assumes that in managing ASTV has also achieved certain efficiency, i.e. that other controllable costs have changed in time less compared with the change in CPI.

Proceeding from the above, (Table 10 row 4 column 2009, 2010, 2011, change in CPI in the period reviewed) the CA is of the position that the level of other controllable costs in the price of the water service valid for Tallinn and Saue City by ASTV in the amount of 6 347 th € (Table 10 row 2 column N) or in the sum presented in the tariff approval application by ASTV was justified.

Proceeding from the above, the CA considers as justified in the price of water service of Tallinn and Saue City the other controllable costs of 6 347 th € or in the extent pointed out in the tariff application by ASTV.

6. Costs of bad debts.

Pursuant to article 4.6 of the Guidelines costs for bad debts shall not be included in the prices for water service.

ASTV has submitted the costs of bad debts to be included in the price of water service of Tallinn and Saue City in the amount of 312 th € (4 887 th kr).

On the basis of the submitted Tariff Application, ASTV forecasts for the financial year of 2011 the cost of bad debts in the amount of 348.6 th € (5 454 th kr), incl. in Tallinn and Saue City 312 th € (4 887 th kr) i.e. 89.6% from the proportion of the total cost item.

CA's position regarding bad debts.

CA does not accept that costs of bad debts are included in the price of water service, because no consumer correctly paying the invoices agrees to pay through the price of water service the invoices that have not been paid to by the debtors to the water undertaking. If to accept that costs of bad debts are included in the price of water service, then this would take off the motivation of the companies to deal with debtors and the consumers who have so far paid their invoices correctly will lose motivation to pay the invoices in future. In the opinion of the CA the bad debts must be collected through court.

Proceeding from the CA's reasoning above and from article 4.6.1 of the Guidelines, pursuant to which the costs for bad debts shall not be included in the prices for water service, the CA did not accept that the cost of bad debts in the amount of 312 th € (4 887 th kr) of Tallinn and Saue City as presented in ASTV's Tariff Application is included in the price of water service.

Pursuant to § 40 (1) of the APA the CA granted ASTV a possibility to provide its opinion and objections in a written form regarding the CA's position regarding including the costs of bad debt into the price of water service.

In the response sent by ASTV on 29.03.2011 in summary the following objections were presented:

It is not possible for ASTV to fully avoid the cost of bad debts:

- Because the court rulings are not executed;
- It is not possible for ASTV to claim prepayment from malevolent debtors.

CA's final position regarding the cost of bad debts of 312 th € (4 887 th kr) to be included in the price of water service of Tallinn and Saue City.

As a response to the statement by ASTV, the CA informs that if the court ruling is not executed, then it is possible to turn to the bailiff whose task is to monitor the execution of court rulings. Thus it is not justified by ASTV to include the unpaid invoices to the price of water service due to the fact that court rulings are not executed.

The mechanism of paying the invoices (either as a prepayment or afterwards) is a procedure to be set in the customer agreements by ASTV. If ASTV finds that in case of certain customers or customer groups it is necessary to implement a prepayment mechanism, then no legislation prohibits that. The justifiability of implementing the prepayment mechanism is important. Thus it is not justified to include unpaid invoices in the price of water service due to the fact that it is not possible to implement the prepayment mechanism.

Through the legislation valid in Estonia and through the terms and conditions of the contract preconditions have been established for the water undertaking for reclaiming the unpaid invoices and avoiding unpaid invoices. Thus the CA continues to be of the position that including the cost of bad debts to the price of water service and thereby to the price of water service for the people correctly paying their invoices is not justified.

Due to the abovementioned reasons the CA does not accept the cost of bad debts (312 tuh €) in the price of water service. The price of water service that would include the cost of bad debts would not comply with the principles of PWSSA §14 (2) and article 4.6.1 of the Guidelines.

7. Investments. Calculation of regulatory asset base, capital expenditure and justified return

7.1 Investments.

ASTV is applying that the investments are included in the price of water services of Tallinn and Saue City in the amount of **10 338 th € (161 755 th kr)**.

Pursuant to PWSSA § 14 (2) clause 2 the price of water service must cover the investments into existing water and waste water systems in order to secure sustainability. Thus it is important to assess the justifiability of the investments in the price of water service. For that purpose the PWSSA § 14² (10) sets out an obligation for the CA to ask for the opinion from rural municipality or city government regarding the compliance of the price application with the PWSSS development plan. The

task of the rural municipality or city government is to ensure through the PWSSS development plan the sustainability of the PWSS systems.

On 24.01.2010 the CA sent an inquiry to the City Governments of Tallinn and Saue in which it asked regarding the compliance of the investments reflected in regulatory asset base with the PWSSS development plan.

According to the response from Saue City Government on 10.02.2011 and Tallinn City Government on 16.02.2011 the investments included in the Tariff Application are in compliance with the PWSSS development plan. Due to this, when the local municipality has fulfilled their legal obligations, the inclusion of investments into the tariff also safeguards the fulfilment of PWSSA §14 (2) clause 2.

Therefore CA accepts the investments in the sum of 10 338 th € (161 755 th kr) in the price of water service of Tallinn and Saue City, because the City Governments of Tallinn and Saue have assessed that the investments outlined in the Tariff Application are in compliance with the PWSSS development plan.

7.2 Principles of calculating regulatory asset base.

Pursuant to article 2.14 of the Guidelines fixed assets and working capital used in the regulatory activity are the regulatory asset base.

Pursuant to article 5.4 of the Guidelines it is necessary to determine the regulatory asset base for calculating the capital expenditure (depreciation of asset) and justified return.

Pursuant to article 5.6 of the Guidelines the following shall not be included into the regulatory asset base:

- 1) Fixed assets used in non-core activity;
- 2) Long-term financial investments;
- 3) Intangible fixed assets (except for computer software and programmes' licences and connection fees paid to other water undertakings);
- 4) Fixed assets acquired through grant aid (incl. through government grants);
- 5) Fixed assets acquired from the connection fees paid by the consumers;
- 6) Unjustified investments.

Pursuant to article 5.7 of the Guidelines when calculating the value of regulatory asset base, the residual book value at the end of the regulation period is used (Pursuant to article 2.12 of the Guidelines regulation period is a 12-month period, the costs and justified return of which serve as the basis for calculating the prices).

Pursuant to the data presented by ASTV the value of regulatory asset base is 353 mln € (5 523 mln kr)

ASTV considers as regulatory asset base the value that the company has calculated as follows:

- 1) In 2001, 84,887 th € (1 328,2 th kr) was paid at the privatisation of ASTV for a shareholding of 50.4% in the company.
- 2) On the basis of the sum paid for the holding of 50.4%, the company's equity value is calculated aka the company's (100%) value of 168,427 th € ($84,877 \times 100\% / 50,4\% = 168,427$ th € aka 2 635,317 kr).
- 3) Debt obligations in the amount of 40,675 th € (636,430 th kr) have been added to the calculated value of ASTV of 2001 of 168,427 th € and the initial value of the regulatory asset base in 2001 has been calculated, which is 209,103 th € (3 271,747 th kr Table 11 row "opening balance" column „2001”).
- 4) A table prepared by ASTV is presented below (see Table 11), based on which ASTV has come **to the value of the regulatory asset base of 353 mln € (5 523 mln kr Table 11 last row of the last column).**

Table 11 Table presented by ASTV regarding the formation of regulatory asset base

mln €	2 001	2 002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Opening balance	209	225	235	241	250	264	279	302	335	336	346
CAPEX	5	3	5	4	6	5	4	2	2	4	8
Indexation*	12	8	3	7	10	12	19	32	0	9	9
Depreciation	-4	-4	-4	-5	-5	-5	-5	-5	-5	-5	-5
Enhancement infrastructure **	3	3	2	2	3	3	5	4	4	3	3
Closing balance	225	235	241	250	264	279	302	335	336	346	360
Average RCV	217	230	238	245	257	272	291	319	335	341	353

mln kr	2 001	2 002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Opening balance	3 272	3 516	3 680	3 766	3 904	4 132	4 369	4 725	5 242	5 253	5 412
CAPEX	73	50	80	64	92	74	62	37	37	55	119
Indexation*	192	127	48	114	162	183	290	493	-5	137	137
Depreciation	-62	-66	-70	-73	-74	-74	-72	-80	-78	-77	-79
Enhancement infrastructure **	42	53	27	35	47	55	76	68	57	43	45
Closing balance	3 516	3 680	3 766	3 904	4 132	4 369	4 725	5 242	5 253	5 412	5 634
Average RCV	3 394	3 598	3 723	3 835	4 018	4 251	4 547	4 984	5 248	5 332	5 523

* Indexation is the annual correction of the asset value by CPI.

** Enhancement infrastructure – networks reconstruction (basically investment).

CA's position regarding the value of regulatory asset base in the price of water service of Tallinn and Saue City.

The rate of return of monopolies must be restricted, which is also set out in PWSSA §14 (2) clause 5, which stipulates that the price of water service must be established such that the water undertaking can operate with justified profitability on invested capital. ASTV is a monopoly, which is why the consumers do not have the option of purchasing the PWSS service from competitive companies. Proceeding from that, generally recognised price regulation principles have been formed both in Europe as well as elsewhere in the world, one aim of which is limiting the return. Without limiting the return a company in a dominant position would have an opportunity to earn excess profit from the expense of consumer and without the intervention of the regulator (in this case the CA) the consumer would have to pay up the possible excess profit of the company in a dominant position because the consumer does not have an alternative choice.

ASTV's approach, in which the value of regulatory asset base has been derived from the value of the company agreed upon between two parties, cannot be considered justified. If to follow the principle of ASTV, due to merely the agreement between two parties the price of water service should change for the consumers, because the value of regulatory asset base increases. ASTV's position is directly in contradiction with the position set in PWSSA §14 (2), pursuant to which the price of water service is formed on the basis of costs, because the price of water service is justified to change only in case improving changes take place in the PWSS system (i.e. investments are made or other expenses incurred for improving, managing or maintaining the PWSS system). Thus there is also no basis for changing the price of water price only for a reason that the owner is change, i.e. it is not in compliance with law to take the sums paid at the privatisation of ASTV as the basis for calculating the price of water service.

Pursuant to article 5.7 of the Guidelines the price of water service changes only when the owner has carried out actual investments for the development of the PWSS system. Pursuant to article 5.7 of the Guidelines when calculating the value of regulatory asset base, the residual book value at the end of

the regulation period is used (Pursuant to article 2.12 of the Guidelines regulation period is a 12-month period, the costs and justified return of which serve as the basis for calculating the prices), as only the data reflected in the company's accounting demonstrate the company's actual investments into PWSS systems.

The CA does not consider the annual correction of the value of regulatory asset base with the CPI used by ASTV to be justified, because **as a result of this the price of water service for consumers would increase each year in a situation in which the water company has not actually carried out any investments into PWSS system.** Proceeding from the cost-basis principle reflected in §14 (2) of the PWSSA only the costs actually carried out by the company can be reflected in the price of water service. However, change in CPI cannot be considered as a cost by the company. The CA considers increasing the asset values by CPI on an annual basis to be in contradiction with the principles included in § 14 (2) of the PWSSA and considers it to be unfair with regard to consumers. CA remains firm to the principles of calculating regulatory asset base as included in Guidelines, where only the investments into PWSS system actually carried out by the company are reflected in the price of water service.

In the following the CA has prepared a table for calculating the value of regulatory asset base at the end of the regulation period (Table 12) on the basis of the data on fixed assets reflected in the accounting as submitted by ASTV (with file on 14.01.2010 „2011-01-14 vastus Konkurentsiametile Lisad.xlsx“page „LISA 4 Põhivara“) in Tallinn and Saue City, from which the assets pointed out in article 5.6 of the Guidelines have been deducted:

Table 3 Value of regulatory asset base

		2008	2009	2010	Regulation period (2011)
Acquisition value of fixed assets at the beginning of the year	th €	190 792	196 172	201 568	207 486
Residual value of fixed assets at the beginning of the year	th €	124 068	125 497	126 498	127 525
Invested into the acquisition of fixed assets	th €	6 904	6 218	5 917	10 338
Calculated depreciation of fixed assets	th €	5 309	5 181	4 890	5 044
Fixed assets sold in acquisition value	th €	1 341	792		
Fixed assets sold in residual value	th €	16	6		
Reclassified fixed assets in acquisition value	th €	182	30		
Reclassified fixed assets in residual value	th €	150	30		
Acquisition value of fixed assets at the end of the year	th €	196 172	201 568	207 486	217 823
Residual value of fixed assets at the end of the year	th €	125 497	126 498	127 525	132 819

Pursuant to article 5.7 of the Guidelines the CA has calculated the residual value of the regulatory asset base at the end of the regulation period (RAB_r) 132, 819 mln € (2 078 159 th kr).

Pursuant to article 5.8 of the Guidelines the regulatory asset base at the regulation period is calculated as follows:

$$RAB = RAB_r + WC,$$

where:

RAB - regulatory asset base;
RAB_r - residual book value of regulatory asset base at the end of a regulation period;
WC - working capital (Pursuant to article 5.9 of the Guidelines 5% of the allowed sales revenue of the regulation period shall be taken as the basis for calculating the working capital).

When calculating the working capital the CA takes as the basis the sales revenues in Tallinn and Saue City forecasted by ASTV from the sale of water services referred to in § 14 (1) of the PWSSA, which is a charge for water extracted 23 650, 76 th € + a charge for leading off and purifying waste water 18 817,31 th € + a charge for leading off and purifying storm water, drainage water and other soil and surface water 3 481,01 th €, in total 45 949,08 th €.

Pursuant to article 5.9 of the Guidelines the amount of working capital is 2 297,45 th € (45 949,08 sales revenue forecasted by ASTV x 5% /100% = 2 297,45 th €).

Thus pursuant to article 5.8 of the Guidelines the CA considers a justified **value of regulatory asset base at the regulation period to be 135.116 mln €** (132 819 th € + 2 297 th € = 135 116 th €), **not the 353 mln € (5 523 mln kr) applied for by the CA.**

Pursuant to § 40 (1) of the APA the CA granted ASTV a possibility to provide its opinion and objections in a written form regarding positions of the CA, the formation of the value of regulatory asset base the costs of bad debt into the price of water service.

In the response sent by ASTV on 29.03.2011, the following objections were presented:

- When calculating the original value of the regulatory asset base, ASTV took as the basis the privatisation value, because this has been recommended by the World Bank regulation guidelines.
- Why the CA does not apply the regulatory principle where the regulatory asset base is adjusted with CPI.
- CA does not take into account the improvement of quality and service levels occurred during the privatisation.
- The approach to the regulatory asset base used by the CA is in contradiction with the generally recognised regulation principles and Estonian law, which is confirmed by the Supreme Court ruling on 25.05.2010 in case No 3-4-1-21-09 and the State Audit Office Report "State's actions in ensuring the sustainability of the heat supply".

CA's final position regarding the regulatory asset base:

The CA continues to be of the position that the regulatory asset base must reflect the value of the fixed assets reflected in the company's balance sheet. §15(1) of the Accounting Act obligates to give a true and fair view of the company's financial position, incl. balance sheet and the asset value in fair value included therein. If what is reflected in the accounting is not true, then this raises a question regarding why the company at all has a liability of accounting. Additionally, ASTV is a listed company, where accounting results are presented year-after-year. If the asset value reflected in accounting is incorrect, then also the stock exchange is regularly presented with incorrect information. If ASTV's **accounting reflects the value of fixed assets to be ca 133 mln €** (last row of the last column of Table 12) and in the approval of the price of water service ASTV calculates the regulatory asset base to be **353 mln €** (last row of the last column of Table 11), then such an activity is not justified, because the company's accounting reflects the actual value of the company. If to take as the basis the privatisation value of the company, i.e. ASTV's approach, then the water price changes for the consumers each time when a sale-purchase transaction takes place despite **actual changes in the public water supply and sewerage system** at the same time **taking place**. §14 (2) of the PWSSA foresees a cost-based formation of the price of water service, i.e. only these costs and investments that are directly related to the provision of water service shall be included in the price of water service.

CA's comment to the World Bank regulation guideline referred to by ASTV. Hereby the CA would like to emphasise that there are regulation principles valid in Estonia since 2002¹¹, that are applied uniformly for the purpose of equal treatment in several monopolistic areas (energetic, communication, postal services, railway etc): the CA being the member of International Regulators' Association in the field of energetic (CEER and ERGEG¹² with a new title of ACER¹³ obligatory for the regulators of European Union Member States and ERRA¹⁴) and the member of International Regulators' Association in the field of electronic communication (IRG¹⁵, ERG with a new title of BERECA¹⁶) can claim that the regulation principles in energetic (electricity, gas) and electronic communication are in compliance with the international best regulation practice of the respective areas. The abovementioned regulatory principles are applied also in the regulation of water companies.

The CA is of the position that the price regulation in Estonia cannot proceed pursuant to the alleged regulation practices of other countries or regulatory methodology found from regulation literature suitable for water companies, but **without exception** being based on the legislation valid in Estonia. The CA is well informed of the fact that in Europe the member states implement different regulation methodologies, however, this is due to the different legislation valid in various countries. Within the Council of European Energy Regulators (CEER) studies have been composed of the regulations of the member states and the advantages and disadvantages of various regulation methodologies have been pointed out. As positive and negative features can be found in case of all regulation principles, then so far it has not been considered rational in European Union to implement one so-called impeccable regulation principle. Thus the member states are given a free choice for implementing different regulation principles through legislation and the statement as if the legislation valid in Estonia concerning the regulation does not agree with certain regulation guidelines, is not an argument for implementing the regulation principle desired by the water company. Based on the abovementioned the CA can claim that the regulation principles valid in Estonia do not contradict any of the legal act valid in European Union, not to mention the legislation valid locally (in Estonia).

The regulation principle proposed by ASTV in which the original value of the assets is the value of the privatisation transaction and this is then adjusted with inflation, cannot be considered justified because it does not ensure the justifiability or the cost-basis of the prices of water services. When using the principle of ASTV, a situation could emerge in which the change in the owners of the companies could bring about a price increase, because by wishing to get a higher return through water price, a higher sales price of the company would be agreed on in the sale-purchase transaction. Also the indexation of assets cannot be considered justified, which is directly in contradiction with the accounting rules, where the indexation of the value of company's assets does not occur. When finding the value of regulatory asset base the CA has proceeded from clause 5.7 of the Methodology, based on which the residual book value at the end of the regulation period is used when calculating the value of regulatory asset base.

The advantage of the regulation principle used by the CA is, as already mentioned above, also the transparency, i.e. each shareholder, when opening the audited accounting data of the company as

¹¹ Instructions/regulations regulating energetics and electronic communication and the regulation applied in the field of railway:

- "Common methodology for calculating the electricity network charges",
- Decree of the Minister of Economic Affairs and Communications "Methodology of calculating the user fee of railway infrastructure"
- "Obligatory methodology for calculating separately the costs, calculating the price oriented to costs and assigning revenues",
- "Terms and conditions and procedure for establishing a price for water service" etc.

¹² http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_ABOUT/MEMBERS/CEER_Members

¹³ European Parliament and Council Decree (EC) No 713/2009, 13 July 2009

¹⁴ http://www.erranet.org/Library/ERRA_Member_Profiles

¹⁵ <http://www.irg.eu/render.jsp?categoryId=260504>

¹⁶ European Parliament and Council Decree (EC) No 1211/2009 25 November 2009

reflected in the Central Commercial Register¹⁷ (impartial verification option independent from the company) and the instruction for calculating WACC published on the CA's website¹⁸ (impartial verification option independent from the company), one can easily calculate the return that the company is allowed to earn.

The statement as if the CA does not take into account the improvement in quality and service levels occurred during the privatisation is not correct because the CA accepts all costs that serve as the basis for calculating the price by ASTV (except the cost of bad debts and pollution tax for overpolluting the environment) and the investments made in the interim years. Of course the improvement of quality and service levels can occur also without any costs as a result of a better and more optimal management of the process, however, in circumstances where the regulator has approved a certain cost level and the company can manage with lower costs, the cost saving is purely additional revenue for the company. Thus it is not correct to claim that the CA has not taken into account the improvement in quality and service levels.

ASTV's references to the State Audit Office Report "State's actions in ensuring the sustainability of the heat supply", page 37, clause 111; page 40, clause 115 and page 3; page 40, clause 116 are not relevant from the context of adjusting the regulatory asset base with the CPI. The clauses referred to by ASTV concern the alleged non-transparency of the CA. The CA has not agreed to these statements and has presented its objections to the State Audit Office Report (re clause 111 on page 54,55; re clauses 115 and 116 on page 56).

ASTV's reference to the Constitutional Review Chamber of the Supreme Court ruling on 25.05.2010 in case No 3-4-1-21-09 is immaterial. The ruling referred treats the decision of Tallinn Administrative Court of 11 September 2009 in administrative case no 3-05-384, with which the court of first instance declared the "Methodology of calculating the user fee of railway infrastructure" to be in contradiction with the Constitution. Based on the ruling made by the Supreme Court on 28.09.2010 in the case No 3-4-1-21-09, with its ruling on 19.10.2010 the Administrative Court annulled its decision of 11.09.2009 in connection with the complainant withdrawing its complaint.

Proceeding from the abovementioned §14 (2) clause 5 of the PWSSA and article 5.8 of the Guidelines the CA considers as justified **value of regulatory asset base at the regulation period 135,116 mln € (2 114,1 th kroons) which is the value of assets reflected in the company's accounting, not the 353 mln € (5 523 mln kr) applied by ASTV. As the CA does not consider ASTV's value of regulatory asset base justified, then the CA cannot consider the entire Tariff Application to be justified, because the price of water service forms when dividing justified costs, cost of capital and justified return (calculated on the basis of regulatory asset base) with the water service sales volumes. If one of the components that serve as the basis for calculating the price is not justified, then the price of water service applied is also not correct.**

7.3 Principles for calculating capital expenditure

The capital expenditure applied for by ASTV in the price of water service in Tallinn and Saue City in the amount of 5 044 th € (78 921 th kr).

In the price of water service ASTV has applied for the capital expenditure in the amount of **5 044 th € (78 921 th kr)**.

CA's position regarding the capital expenditure to be included in the price of water service of Tallinn and Saue City.

Pursuant to article 5.1 of the Guidelines the aim of the capital expenditure is to earn back the expenses made for the acquisition of fixed assets through the price of water service during the useful lifespan of

¹⁷ <https://ariregister.rik.ee/>

¹⁸ <http://www.konkurentsiamet.ee/?id=18324>

the fixed assets. Pursuant to article 5.3 of the Guidelines capital expenditure is calculated from the depreciable fixed assets included within the regulatory asset base. Pursuant to article 5.7 of the Guidelines in the calculation of the capital expenditure, depreciation rate on regulatory assets base reflected in the accounting shall be used.

Pursuant to the table (Table 12) prepared by the CA on the basis of the data from the accounting presented by ASTV the depreciation rate on regulatory assets reflected in accounting is 5 044 th €.

The CA has prepared a table (Table) on the lifespans of the assets reflected in accounting by ASTV:

Table 13

	ASTV's data	KIK recommendation*
Networks pipeline	54 years	40 years
Production buildings	80 years	40 years
Reservoirs and tanks	60 years	40 years
Machinery and equipment	10,6 years	15 years
Weighted average lifespan of assets at the regulation period	41 years	

* Ministry of Environment Decree No 34 of 01.07.2009, useful lifespans of assets reflected in clause 10 of Annex 2 “Guidelines for preparing the feasibility study, financial and economic analysis and provisional environmental impact assessment for a project if the application for co-financing the project is submitted to the EU Cohesion Fund”.

From the data reflected in the table (Table 13) it may be concluded that ASTV generally uses a longer lifespan of assets in its accounting than is recommended in the regulation of the Ministry of Environment (economically useful lifespan). The longer the lifespan of assets used in the provision of PWSS services, the lesser the price of water service. At the same time, the higher is the regulatory asset base, as the value of assets decreases slower (through deducting the depreciation from the value of regulatory asset base at the beginning of the year, the value of regulatory asset base at the end of the year is formed, which pursuant to article 5.7 of the Guidelines serves as a basis for calculating justified return), and this, in turn, increases the service price.

As in its accounting when establishing the lifespan of assets ASTV has followed the actual technical service life of the assets (which is longer than the economically useful lifespan), due to which the application of a longer lifespan to assets decreases the sum of amortisation in the price, and enables the consumers a smoother increase in prices of water service when the company performs new investments, then, based on article 5.7 of the Guidelines, the CA deems the **depreciation in the accounting as justified in the amount of 5044 th € aka at the level that ASTV applied for in the Tariff Application.**

7.4 Principles of the calculation of justified return

ASTV has applied for a justified return of 25 957 th €, incl. 23 510 th €, (367 856 th kr) in the water tariff for Tallinn and Saue City.

ASTV applies for a justified return of **23 510 th €, (367 856 th kr)** in the water tariff for Tallinn and Saue City. According to the company’s explanations, the sum of justified return included in the water tariff for Tallinn and Saue cities is based on the Services Agreement signed between the City of Tallinn and ASTV on 12.01.2001. ASTV is applying for the justified return set out in the Services Agreement by applying a ~~post-tax~~ rate of return of (or WACC) 6.46% on the regulated assets in the sum of 353 th € (5 522,914 th kr) referred to in clause 7.2 of this resolution, the WACC having been calculated in the following table 14 (table submitted by ASTV ANNEX 1 FINANCIAL TABLES submitted by ASTV – Table 7 – Forecasted cost of capital (WACC)):

Table 14 WACC calculation by ASTV

WACC calculation (%-des)	ASTV
--------------------------	------

1. Risk-free rate (real)	2,0
2. Capital structure	50
3. Country risk premium	1,5
4. Equity beta	0,8
5. Cost of debt (pre-tax)	5,1
6. Cost of equity (post-tax)	7,82
7. Vanilla (WACC)	6,46

ASTV justifies the use of the rate of return (WACC=6.46%) presented in Table 14 as follows:

- By applying a rate of return of 6,46% on the value of regulated assets of 353 mln € submitted in the tariff application, ASTV's post-tax profit is 22 803 th € or 356 780 th kr (353 mln € x 6,46%/100% x 1000 conversion = 22 803 th €).
- By adding to the post-tax profit 22 803 th € (356 789 th kr) the income tax on dividends of 1 746 th € (27 324 th kr), return is 24,549 th € (384 104 th kr).
- As based on the annex to the Services Agreement signed between the City of Tallinn and ASTV on 12.01.2001, ASTV requests justified return of 23 510 th € (367 856 th kr) in the water tariff for Tallinn and Saue City, which is lower than the return of 24 549 th € (384 104 th kr) calculated by ASTV, then proceeding from ASTV's opinion it is in every way justified to include a return in the sum of 23 510 th € (367 856 th kr) in the price of water service for Tallinn and Saue City.

CA's position on justified return.

Pursuant to the PWSSA § 14 (2) clause 5 the price of water service shall be established such that the water undertaking can operate with justified profitability on the **capital invested** by the water undertaking. Pursuant to the article 5.7 of the Guidelines, the invested capital is the value of the fixed assets used in the regulated activities as accounted for in the books of the company at the end of the regulation period, i.e. the value of regulatory asset base, which was described in more detail in the clause 7.2 of this resolution.

According to articles 6.1 and 6.2 the justified return is calculated by multiplying the value of regulatory asset base with a justified rate of return:

$$JR = r_p \times RAB;$$

where:

- JR* - justified return;
- r_p* - justified rate of return (WACC);
- RAB* - regulatory asset base.

Based on the article 6.3 of the Guidelines, the justified rate of return equals with the weighted average cost of capital (WACC) i.e.:

$$r_p = WACC.$$

Based on the article 6.5 of the Guidelines, when calculating the WACC the CA uses a capital structure, of which 50% is debt and 50% equity. CA does not use the company's accounting data for calculating the capital structure of WACC. However, the gearing provided by ASTV in the table 14 corresponds to the capital structure named by the CA (Table 14 row 2 and Table 15 row 10).

In order to provide more detailed explanations of the principles outlined in the articles 6.4 to 6.10, the CA has developed guideline materials named "Guidelines for calculating WACC (2011)" for calculating WACC for district heating, electricity, gas and water companies (hereinafter referred to as WACC Principles), which are published on CA's webpage <http://www.konkurentsiamet.ee/?id=10947>.

Table 5 in clause 3 of these guidelines sets out a **WACC of 8,18% for water undertakings**, the basis for calculation of which is set out in the following table (see Table 4)

Table 4

WACC calculation (%)	water undertakings
1. Yield of riskfree 10-y German bonds	3,58
2. Estonian country risk premium	1,9
3. Risk premium of the debt of an undertaking	1
4. Pre-tax cost of debt	6,48
1. Yield of riskfree 10-y German bonds	3,58
2. Estonian country risk premium	1,9
7. Market risk premium (McKinsey)	5
8. Beta (gearing 50%:50%)	0,88
9. Pre-tax cost of equity	9,88
10. Debt/equity ratio (50%:50%)	0,5
11. WACC	8,18

WACC Principles include detailed explanations and justifications for determining and using all the WACC calculation components (Table 15 rows 1 to 10).

The WACC used by ASTV does not correlate with the WACC used by CA and the principles of the Guidelines. When RAB is calculated using article 5.7 of the Guidelines the undertaking's net book value of fixed assets as reflected in the bookkeeping, as has been done by CA in article 7.2 of this letter, then WACC calculation must comply with the principles pointed out in the guidelines. CA considers it appropriate to use a nominal WACC¹⁹ in calculating justified profitability, because it has taken into account investment risk levels, economic cycle phases, inflation etc.

Since component values (except for gearing) used as the basis for WACC by ASTV in the table (see Table 14) do not correlate with the values presented in the table (see Table 15), then CA cannot determine them as justified. In its justified profitability calculations CA follows the values of WACC components in the table (Table 15), giving a justified WACC value of 8,18%.

Thus the justified profitability as per PWSSA §14 (2) clause 5 and article 6 of the Guidelines will be **11 052,5 th € (172 934 th EEK)** (regulated assets 135 116 th € (end part of clause 7.2 of this resolution) x 8,18% (WACC)/100%=11 052,5 th €).

ASTV has applied for a justified profitability of 23 510 th € (367 856 th EEK), which exceeds close to two times (23 510/11 052,5 = 2,1 times) value of justified profitability calculated as per PWSSA §14 (2) clause 5 and article 6 of the Guidelines.

Based on the above, the CA cannot find it justified to approve ASTV's applied justified return in the water tariffs in Tallinn and Saue in the sum of 23 510 th € and therefore in the overall Tariff application, because water tariffs are formed through dividing justified costs, cost of capital and justified return with water sales volumes. If one of the components for calculating tariffs is not justified, then the entire applied tariff is incorrect.

Based on §40 (1) of the APA, the CA gave ASTV an opportunity to present its opinions and counterclaims in writing to CA's positions and with regard to justified return.

¹⁹ Which WACC the CA uses has been explained in the document published on the website of the CA "CA's explanations to the water undertakings regarding the Guideline "Recommendations for calculating the price of water service"" in clauses 169, 172, 173

On 29.03.2011 ASTV submitted in its objections several questions regarding the calculation of the rate of return (WACC) used in calculating justified return and also several doubts regarding the justness of the WACC calculation, which were as follows

- CA has not explained the bases for calculating the WACC, which have been taken as the basis in calculating the justified return, i.e. justified why in the calculation of WACC the method used by the CA has been chosen as the basis for finding a certain component;
- WACC calculated by the CA is not correct because it does not include inflation;
- Regulator is not entitled to establish the capital structure;
- The bases for calculating the risk-free rate of return used by the CA are unclear. ASTV does not understand why the calculation of the risk-free rate of return uses the return of the German bonds over the past five years and finds that the credit risk swap transactions are a suitable indicator for calculating the risk-free rate of return the return
- ASTV does not understand why in the calculation of equity price the market risk premium of 5% is used;
- Through submitting various questions, ASTV doubts on the correctness of beta coefficient;
- WACC does not take into account the obligation of the company's owners to pay dividends on income tax.

CA's final position regarding justified return:

Basis for calculating WACC. On 29.03.2011 ASTV submitted a statement that the CA has not explained the bases for calculating WACC, which have been taken as the basis in calculating the justified return, i.e. justified why in the calculation of WACC the method used by the CA has been chosen as the basis for finding a certain component.

CA does not agree with this statement. CA has prepared and published on an annual basis on its website the guidelines for calculating WACC, incl. for 2011, with the title: "Guidelines for calculating the weighted average cost of capital WACC (2011)"²⁰ (hereinafter WACC Principles). Additionally the CA has sufficiently responded and published on its website to the numerous questions (more than 200) submitted by ASTV and other water undertakings both regarding the Guidelines as well as with regard to WACC: "CA's explanations to the water undertakings regarding the Guideline "Recommendations for calculating the price of water service"²¹.

In the calculation of WACC the CA has proceeded from articles 6.4 to 6.10 of the Guidelines.

On the basis of article 6.6 of the Guidelines when determining the cost of debt, the interest levels of a long-term periodic money market have been taken as the basis. The average of 5 last years of German 10 year bonds has been used, to which country risk premium and company risk premium have been added.

On the basis of article 6.7 of the Guidelines the cost of equity is calculated according to the CAPM (*capital assets pricing model*) model, thereby the calculation is based on the risk-free rate of return, country risk premium, beta coefficient and market risk premium. On the basis of article 6.8 of the Guidelines the risk-free rate of return is regarded as the 5-year average interest rate of a German 10-year bond, to which the country risk premium is added.

On the basis of article 6.6 of the Guidelines in case of Estonian bonds exist the cost of debt may be determined on the basis of the interest rate of a state bond. On the basis of article 6.8 of the Guidelines similarly can be acted also in case of determining the cost of equity where in case state bonds exist the risk-free rate may be determined on the basis of the interest rate of a state bond.

²⁰ <http://www.konkurentsiamet.ee/?id=18324>

²¹ <http://www.konkurentsiamet.ee/?id=18324>

The reason why the CA has used the interest rate of German bond is the fact that the state of Estonia has not organised bond issues, which is why there is no data regarding the interest rate of Estonian bond. The 5-year average interest rate of a German 10-year bond (2006-2010) is taken from OECD database (<http://stats.oecd.org/Index.aspx>) and it is 3.58%.

In finding the country risk premium the CA has used as the basis the evaluation by the Bank of Estonia, based on which the country risk is determined by the relative amount of money that the Estonian state has to pay in excess compared to the countries with higher credit rating (e.g. Germany), when it borrows from international markets. Most simple way is to compare differences in the interest rates of governmental bonds. The Government of Estonia has no such bonds and therefore the country risk can be evaluated by the comparison of the differences in money markets, basing on the difference between Talibor²² and Euribor²³ quotations. As the rate of return of the German bonds is taken as an average for the last five years, then also for the Estonian country risk evaluation it is justified to base on the last five year arithmetical average difference between the Talibor and Euribor quotations (based on quotations of 2006-2010). To that end each month's last day indicators were taken and on their basis the Talibor and Euribor arithmetical average quotations were calculated and then the difference between these arithmetical averages was found. The CA used <http://www.eestipank.info/> for finding the arithmetical average quotations for the Talibor and <http://www.euribor.org/> for finding the arithmetical average quotations for the Euribor and received 1.9% as the country risk premium.²⁴

ASTV has stated that in finding the country risk premium the difference between credit risk swap transactions (*Credit Default Swap* - CDS) should be used. Using the method required by ASTV would result in the value of country risk premium of 1.5% instead of the 1.9% calculated by the CA and would lead to a lower WACC and thus also to a lower value of justified return. This, however, is directly in contradiction with the positions previously presented by ASTV, because when using the abovementioned CDS in determining the country risk, then the justified return would be even lower. Estonian country risk can be found with several various methods, which all can give different results. Additionally all methods have their advantages and shortcomings. As the principles of WACC formation used by the CA are common in all monopolistic sectors (in addition to the water sector also in the areas of heat, electricity and gas or in energy sector), then reducing the value of WACC would not be justified as it would reduce the value of justified return to be included in the prices of the services of all regulated areas and would thereby significantly damage the interests and sustainability of the companies that are under continuous regulation of CA. Therefore from the perspective of consistency, transparency and equal treatment of the regulation principles of monopolistic companies it would not be justified to replace one method with another one only because ASTV wishes so. Additionally, the position by ASTV is in direct contradiction with the positions of the company pointed out above and would bring about a lower justified return to be included in the price of water service.

In addition to the above, the CA notes that when ca 10 years ago in the energy sector the 5-year average interest rate of a German was taken as the basis in calculating WACC, then before that the base currency of Estonian kroon was German mark. In connection with the start of the third stage of the economic and monetary union on 1 January 1999, 11 European Union state currencies (incl. German mark that is the base currency of Estonian kroon) were irreversibly pegged to each other and a common currency of euro was launched in Europe²⁵. So far there has not been a risk of devaluation in Estonia and thanks to that the owner of ASTV, United Utilities, has won from investing into Estonia, because previously the rate of Estonian kroon and now that of euro has significantly increased in relation to English pound.

²² Talibor is the inter-bank loan interest rate of Estonian kroon

²³ Euribor is the loan interest rate of Euro in pan-European inter-bank money market

²⁴ Exact calculation of the country risk premium is presented in the document published on CA's website "Guidelines for calculating weighted average cost of capital 2011" on page 4, table 1

²⁵http://www.eestipank.info/pub/et/dokumendid/publikatsioonid/seeriad/kroon_majandus/_2008/_2008_34/_2.pdf?ok=1

ASTV claims that in addition to the country risk premium Estonian inflation should be added to the risk-free rate of return. In calculating the cost of debt and cost of equity, the CA has proceeded from the article 6.6, 6.7 and 6.8 of the Guidelines. On the basis of article 6.6 of the Guidelines when determining the cost of debt, the interest levels of a long-term periodic money market (the average of 5 last years of German 10 year bonds), country risk and company risk are taken as the basis. On the basis of articles 6.7 and 6.8 of the Guidelines risk-free rate of return is regarded as the 5-year average interest rate of a German 10-year bond, to which the country risk premium is added. Thus the Guidelines do not provide that in addition to the abovementioned components also inflation should be added to the risk-free rate of return.

Thus when calculating the WACC used as the basis for calculating the justified profitability, the respective country risk premium must be added to the risk-free rate of return as done by the CA, however, inflation cannot be added to it. Thus when calculating the WACC used as the basis for calculating the justified profitability, the respective country risk premium must be added to the risk-free rate of return as done by the CA, however, inflation cannot be added to it. Higher inflation risk (risk – the fact that Estonian inflation exceeds German inflation) is already reflected in the country risk premium. By adding both the country risk premium as well as inflation to the risk-free rate of return, we would receive a result in case of which the consumer would need to pay unfairly high service price, for the reason that the impact of inflation has been calculated twice into the justified profitability.

Proceeding from the above, the CA continues to be of the position that the risk-free rate of return and country risk premium that serve as the basis for calculating both the cost of debt and the cost of equity have been calculated as per the guidelines and are justified.

On the basis of article 6.6 of the Guidelines one of the inputs for determining the cost of debt is the company risk premium. In determining the abovementioned debt risk premium the CA has used the experience of the regulators of other EU member states and has taken the rates of country risk premium on the basis of the average indicators of other states' regulators. CA has the most recent database of the *CEER* countries at its disposal regarding electricity and gas networks. In Estonian conditions also the company providing public water supply and sewerage services is in a dominant position with regard to its consumer. In the area of public water supply and sewerage service provision it is very difficult for the customer to receive a permit from local government for constructing a personal water extraction site (at first the possibility of extracting water from public water supply system is considered) and treating wastewater as per requirements (wastewater collection areas, confirmed by the Minister of Environment with his/her order). In case of wastewater collection areas with pollution load of more than 2000 population equivalents there is an obligation to construct public sewerage system (Water Act §241 (4)) except in cases where the construction of public sewerage system would bring about unjustifiably high costs. Thus, if public sewerage system has been constructed and the consumer is located in the area with a pollution load of more than 2000 p.e., then it is not allowed for the new consumer to independently extract water and treat wastewater.

Proceeding from the above, both water and energy undertakings are undertakings in a similar dominant position and comparable from the nature of the service provided, which is why also the risks of these undertakings can be considered as comparable. Based on that the CA has taken the average indicator of debt risk premium of energy undertakings as the amount of debt risk premium for water undertakings. CA finds that by using the average indicators of other EU member states a justified result is achieved. Thereby the CA has taken the highest possible undertaking's debt risk premium of 1.0% for the water undertakings²⁶.

Proceeding from the above, the CA continues to be of the position that the debt risk premium has been calculated as per the guidelines and is justified.

²⁶ Exact calculation of the debt risk premium is presented in the document published on CA's website "Guidelines for calculating weighted average cost of capital 2011" on page 6, table 2.

On the basis of article 6.7 of the Guidelines the cost of equity is calculated according to the CAPM (*capital assets pricing model*) model, thereby the calculation is based on the risk-free rate of return, country risk premium, beta coefficient and market risk premium. On the basis of article 6.8 of the Guidelines the risk-free rate of return is regarded as the 5-year average interest rate of a German 10-year bond, to which the country risk premium is added. Calculating the risk-free rate of return and country risk premium has been covered above; in the following the calculation of beta coefficient and market risk premium is considered.

Pursuant to article 6.9 of the Guidelines beta coefficient is determined on the basis of the respective indicator of other European and/or US regulated companies. Pursuant to the Guidelines the CA took as the basis for determining the beta coefficient of the water undertakings the most recent known data from the database of A. Damodaran, the Finance Professor of the New York University (<http://pages.stern.nyu.edu/~adamodar/>²⁷, as of 31.01.2011) regarding the levered beta of water undertakings (15 companies), which is 0,82. Also ASTV has been reflected in this database, however, in order to take into account the WACC suitable for all the undertakings in water sector, it is justified to use comparison with a higher number of companies.

In the database of A. Damodaran the average gearing (DC) of the abovementioned 15 companies is 46.80%, the average proportion of equity is 53.20% (EC), average gearing and income tax rate is 31.16% or 0.3116 (31.16%/100%=0.3116).

For converting levered beta =0,82 into unlevered beta, the following Miller formula with tax shield is used:

where:

$$\beta_e = \beta_a \times [1 + (1-T) \times DC/EC]$$

(1-T) – is tax shield where T is company's income tax rate.

Unlevered beta is calculated on the basis of the abovementioned formula

$$\beta_a = \beta_e / [1 + (1-T) \times DC/EC]$$

Proceeding from the abovementioned formula, in case of an average income tax rate of the 15 water companies of 31.16%, the average unlevered beta is 0.55, because $\beta_a = 0,82 / [1 + (1 - 0,3116) \times 0,8796] = 0,55$. By taking zero as the income tax rate (tax shield will not form in Estonia), the average unlevered beta of these companies will be 0.44, because $\beta_a = 0,82 / [1 + (1 - 0) \times 0,8796] = 0,44$.

By using the simplified *Miller* formula of $\beta_e = \beta_a \times 2^{28}$ and the capital structure used by the CA (of which 50% is debt capital and 50% equity capital) and the average unlevered beta of the 15 water companies in case of 0.44), the levered beta of the water companies will be **0.88** (because $\beta_e = 0,44 \times 2 = 0,88$)²⁹.

Proceeding from the abovementioned, that international database has been used in finding the beta coefficient in which the indicators of various water companies (incl. also ASTV) have been compared, then the CA is of the position that the beta coefficient is justified and in compliance with the guidelines.

In finding the market risk premium, the CA has proceeded from the guidelines. On page 7 of the WACC Principles the following explanation has been brought: market risk premium indicates how much investors can earn in addition to the risk-free rate of return. Thus, the market risk premium is a

²⁷ Database: *Cost of Capital by Industry Sector*

²⁸ Clause 2.3.1 formula 4 of the document published on CA's website "Guidelines for calculating weighted average cost of capital 2011"

²⁹ Clause 2.3.2 of the document published on CA's website "Guidelines for calculating weighted average cost of capital 2011"

compensation for taking a systematic risk. Two approaches can be used to determine of the market risk premium: either on the basis of historical data or by an expected risk premium. Regarding historical data shorter or longer historical periods can be considered. Such options are also referred to in the analysis carried out by the regulator of the energy market of Great³⁰.

CA has compared the market risk premiums applied in various CEER countries by EU regulators (see Table 3 in WACC Principles), which are within the range of 3.5% to 6.4%. The arithmetic mean of the market risk premiums applied by EU regulators is 4.7%. In its regulation practice of ca 10 years the CA has taken as the basis the market risk premium of 5%, which is based on the recommendations by McKinsey³¹ and takes into account also the experience of regulators of other EU member states. As the value of market risk premium used by the CA of 5% is close to the average indicator (4.7%) formed on the basis of the indicators applied by regulators of other EU member states, then this could be considered in every way as justified. Additionally, the use of a market risk premium of 5% gives a higher WACC and thus also a higher value of justified return.

Proceeding from the above, the CA continues to be of the position that the beta coefficient taken as the basis for calculating the cost of equity and the market risk premium have been calculated as per the guidelines and are justified.

In determining the capital structure, the CA has proceeded from article 6.5 of the Guidelines, on the basis of which a capital structure of 50% debt and 50% equity shall be used in the calculation of weighted average cost of capital (WACC).

In market regulatory practice the regulators may intervene in the financing related decisions of an undertaking and require certain capital structure or alternatively or calculate service prices with certain capital structure which may differ from the actual structure employed in an undertaking (Pedell 2006: 52)³². In the interest of sustainability and financial stability of monopolistic companies, too extensive involvement of debt capital must be restricted, because too high a proportion of debt capital endangers the financial stability of the company. Involving debt capital in the extent of 50% is optimal pursuant to widespread economic practices. WACC above all determines the business risk of an undertaking and risk-free rate of return of the markets. On the basis of the abovementioned, the CA uses the capital structure in which 50% debt capital and 50% is equity capital in the calculation of WACC (also several regulators use regulative and not an actual capital structure).

The capital structure used by the CA has been used also by ASTV in its WACC calculation (Table 14 row 2). ASTV's actual³³ share of equity capital of total assets in 2010 was 41%, i.e. the share of debt capital was 59% (100% - 41% = 59%). If to use the actual ASTV's capital structure of 2011 in the WACC calculation, then the WACC would be even lower than that calculated by the CA.

Proceeding from the above, the CA continues to be of the position that the capital structure of 50% debt and 50% equity has been calculated as per the guidelines and are justified

Income tax on dividends. Proceeding from article 4.6.7 of the Guidelines the CA does not consider it justified to include into the price of water service the costs of income tax on dividends, as it is not directly related to the provision of water service. Pursuant to PWSSA §14 (2) the price of water service shall be calculated on the basis of only the costs required for providing this service. Costs of income tax on dividends are not related to the provision of water service as it is not required for the

³⁰ *A Study into Certain Aspects of the Cost of Capital for Regulated Utilities in the U.K.* Stephen Wright Birkbeck College and Smithers & Co, Robin Mason, University of Southampton and CEPR, David Miles, Imperial College and CEPR On Behalf Of: Smithers & Co Ltd 20 St Dunstan's Hill London EC3R 8HY February 13, 2003. www.ofgem.gov.uk

³¹ Copeland, Tom; Koller, Tim; Murrin, Jack (2000). *Valuation Measuring and Managing the Values of Companies*. 3rd Ed. New York etc.: John Wiley & Sons

³² B. Pedell. *Regulatory Risk and the Cost of Capital*. Springer, 2006

³³ http://www.tallinnvesi.ee/static/files/773.2010_ar_est_eek.pdf

provision of this service. Article 4.6.7 of the Guidelines precludes including the costs of income tax on dividends into the price of water service. The position submitted by ASTV regarding including the costs of income tax on dividends into the price of water service is not justified because it does not appear from there how this cost is required for providing water service. On the basis of the abovementioned and following the principle of PWSSA §14 (2) and article 4.6.7 of the Guidelines, the CA precludes the possibility of including costs of income tax on dividends into the price of water service.

As all the components that serve as the basis for calculating WACC are justified by the CA and in compliance with the Guidelines, then the CA considers it in every way appropriate to apply the value of WACC of 8.18% in the calculation of justified return (Table 15).

Proceeding from the abovementioned the CA shall remain of the position that WACC of 8.18 (Table 15) is in every way justified and considered and enables the company to earn justified return. Hereby we will emphasise that any WACC calculated by ASTV (6.46% or 7.82%, Table 14) is lower than that calculated by the CA, which means that by applying the WACC by CA, the interests of ASTV will not be damaged.

Pursuant to clause 7.2 of this resolution the justified value of regulatory asset base is 135 116 th € (2114,1 mln kr). Pursuant to article 6.2 of the Guidelines, justified return equals the product of WACC and value of regulatory asset base. Thus justified return is 11 052,5 th € (135116 x 8,18%/100% = 11 052,5 th €). Proceeding from the abovementioned, the justified return of 23 510 th € as applied by ASTV is not justified.

From the bases of the formation of the price of water service required by ASTV it appears that **50.9%** (Table 2 column „ASTV (Tallinna ja Saue linn)“ rows „Põhjendatud tulukus,“ and „Lubatud müügitulu“: $23\,510/46146 * 100\% = 50,9\%$) of the price of water service applied by ASTV is profit (rate of return).

Proceeding from the above, Guidelines and PWSSA §14 (2) clause 5 the return as requested by ASTV in the sum of 23 510 th € is not justified.

Pursuant to the positions expressed in this resolution, which are based on PWSSA §14 (2) and (4), PWSSA §14², PWSSA §16 (11) and the Guidelines,

I resolve:

Not to approve the price of water service applied by ASTV due to the following:

1) Resulting from the principles pointed out in PWSS §14 (2) and ECA and Water Act, the CA cannot consider it justified to include in the price of water service pollution tax in the sum of 2 307 th € (36 093 th kr), which includes sums paid on the basis of ECA §24 (1) and the income tax paid on these sums, due to the water undertaking not meeting the requirements set out in the permit for special use of water regarding wastewater treatment;

2) The price of water service includes the cost of bad debts in the sum of 312 th € (4 887 th kr), which pursuant to the Guidelines shall not be included in the tariff;

3) Return applied for in the sum of 23 510 th € (367 856 th kr) does not comply with the justified return calculated according to the Guidelines in the amount of 11 052,5 th € (172 934 th kr) nor does it accord with the justified return from the capital invested by water undertaking stipulated in PWSSA §14 (2) clause 5;

4) Price of water services has not been formed in compliance with PWSSA §14 (4) and ASTV has not brought the price applied for into compliance with the requirements of equal treatment stipulated in PWSSA §16 (11), i.e. the price difference between physical and legal persons as at 31.10.2010 has not been decreased

In case of not agreeing with this resolution, the undertaking is entitled within 30 days as of the communication of this resolution to submit an objection to the Competition Authority or a complaint for an annulment of the resolution to Administrative Court.

/signed digitally/

Märt Ots
Director General