Introduction

ASTV made its tariff application on the basis of the tariff mechanism within the Services Agreement that was part of the privatisation agreements. These documents complied with national and EU laws. Furthermore, to date no bi-party discussions have taken place between ASTV and the Competition Authority to discuss the privatisation contracts or any of the terms and conditions contained within them. The CA is planning to reject and has preliminarily already rejected ASTV's application on the basis of the reasons outlined in its letter of 28 February 2011. These reasons did not comment on the tariff mechanism contained within services agreement, nor the returns made to over the lifetime of the privatisation contract. However, in the interests of transparency, and to ensure a professional discussion of key regulatory principles, within the following appendix ASTV has detailed its reasons where it disagrees with the CA, and where we believe the points raised by the CA require further discussion if they are to meet with the CA's and World Bank regulatory principles.

ASTV believes that the positions referred by the CA in the conclusion of its letter of 28.02.2011 and the substantive discussion thereof in the main part of the letter are not justified. In the opinion of ASTV, when forming these positions the CA has not taken into account all the appropriate circumstances and the explanations provided by ASTV in the evidence sent to support the Tariff Application as well as the economic content thereof. Therefore we shall hereby present an objection to all of the positions listed in the conclusion of your letter of 28.02.11, following the numeration of listed reasons by the CA.

As an introduction of the response we would like to emphasise the history of the privatisation of ASTV and the general principles of price regulation, which in our opinion the CA should take into account when reviewing the Tariff Application submitted by ASTV.

At this point, it is worth repeating the key bid award criteria in the privatisation of ASTV. In an internationally proclaimed bid, all bidders for ASTV's privatisation contract were required to bid against two bid award criteria. These were: 1. the highest value bid for the shares in ASTV (worth 40% of the bid award criteria); and 2. the lowest set of 'K' factors (worth 60% of the bid award criteria). The 'K' factors were designed to achieve two things: firstly to ensure the bidder made the necessary investments and achieved the significant improvements in quality and service that were required. Secondly, once the first had been achieved, to enable the bidder to make a justified return on their invested capital over the lifetime of the contract. This process was a competitive market led process, which was conducted fully in accordance with all Estonian legal requirements. Moreover, parties agreed that the real tariff increase from 2011-2020 would be 0% as the tariff would only be adjusted by CPI. Furthermore, if you take a look at the 2009 LoS report that we submitted along with the tariff application, then you will see that the significant improvements in quality and service that were required at the time of the bid and as part of the privatisation process have all been achieved and that the Company has even outperformed the required quality standards.

To date, the Competition Authority has not engaged in any meaningful discussions with the Company or its owners on the subject of the Services Agreement or on the subject of safeguarding the terms, conditions as well as intent and aim of the original privatisation agreement. As a consequence, the Company made its tariff application on the basis of the Services Agreement and it did not expect the terms of this fully legal contract, including the investments made into Estonia, to be unilaterally broken by Estonian state authorities without any prior discussion or agreement with the Company or its investors.

1) CA's position: pollution tax paid for water pollution in the sum of 2 307 th € (36 093 th kr) in the price of water service is not justified.

The CA has explained its position as follows: "*CA does not find it justified to include sums paid for pollution loads taxed with higher pollution charge rates based on Environmental Fees Act § 24 section 1 in the price of water service, because this is negligence of the water undertaking, which causes a higher water tariff for the customer. If ASTV has paid for nitrogen pollution loads at higher pollution charge rates as specified in EFA §24 s 1, then this indicates to anti-environment activities by the company. /.../ If CA accepted pollution loads taxed with a higher pollution charge 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 charge rate in the water tariff, then this shall motivate the water undertakings to invest into eliminating pollution loads that are taxed with a higher pollution charge rate.*"

Although we have explained to the CA both in the Tariff Application as well as in the specification letters thereof that it is not possible for ASTV to control the factors impacting the pollution tax (storm water volumes in wastewater, wastewater temperature, concentration of pollutants in incoming wastewater), we shall hereby explain the impact of the referred factors in combination with the tax regulation, pointing out also our experience with regard to potential treatment efficiency and the external factors that impact treatment performance. However before going into a detailed explanation of how pollution tax is paid it is worth reminding ourselves of the requirements in the Estonian, and EU law, which require the company to:

1) Ensure that a <u>minimum</u> of 70% of the nitrogen received at the WWTP is removed in the process (nitrogen removal requirement)

2) The environmental tax law provides tax reductions for the company if it achieves a quarterly target for nitrogen concentration in the treated effluent of 10 mg/l when the temperature of the WW is above 12 degrees (nitrogen concentration requirement).

From the above it is apparent that only one of these requirements is within the company's control. That being the removal of at least 70% of the nitrogen load during the wastewater treatment process.

The quarterly pollution tax is calculated and payable based on the achievement of a concentration value of 10mg/l of total nitrogen in treated effluent and does not recognize the actual performance of the plant. As concentration is related to treated volumes and also to the nitrogen load in incoming waste water, the achievement of this target, particularly in combination with the weather conditions, is outside of the control of Tallinna Vesi. Furthermore, ASTV operates a combined sewerage and stormwater system in most of the city and as such the flow to the WWTP is severely impacted by weather conditions, the amount of impermeable surfaces (concrete) permitted by the City planning departments and built by the City and the usage from commercial enterprises and domestic householders.

In spite of these external factors, during the last 4 years ASTV achieved the nitrogen percentage removal target, with nitrogen removal percentages of 74.8%, 72.3%, 71.9% and 71.5% respectively. This achievement is made more impressive if one takes into account the significant increases in total nitrogen received at the WWTP during this time. The tables below demonstrate these changes and plant performance.

Table 1. Nitrogen removal rate from 2007 to 2010

2007				
	Total flow, m3	N in ave, mg/l	N out ave, mg/l	N removal, %
1 quarter	12876563	40,9	13,1	68,0
2 quarter	10123283	44,3	10,1	77,1
3 quarter	11415352	42,4	9,2	78,3
4 quarter	12177921	42,3	10,4	75,4
Year Ave	**11648280**	**42,5**	**10,7**	**74,8**

2008				
	Total flow, m3	N in ave, mg/l	N out ave, mg/l	N removal, %
1 quarter	13714168	40,9	13,1	68,0
2 quarter	11201332	49,0	11,2	77,2
3 quarter	12508083	43,0	9,4	78,2
4 quarter	13926804	44,2	15,3	65,3
Year Ave	**12837597**	**44,3**	**12,3**	**72,3**

2009				
	Total flow, m3	N in ave, mg/l	N out ave, mg/l	N removal, %
1 quarter	9800510	53,7	21,0	60,8
2 quarter	10628288	51,5	12,0	76,6
3 quarter	10897434	47,3	10,3	78,3
4 quarter	14846552	39,5	10,7	73,0
Year Ave	**11543196**	**48,0**	**13,5**	**71,9**

2010				
	Total flow, m3	N in ave, mg/l	N out ave, mg/l	N removal, %
1 quarter	10193599	52,9	17,1	67,8
2 quarter	14613893	40,7	13,3	67,3
3 quarter	10399823	48,4	11,3	76,6
4 quarter	10707481	52,2	13,7	73,7
Year Ave	**11478699**	**48,6**	**13,9**	**71,5**

Looking at 2010 performance in more detail, the company once again more than achieved the 70% nitrogen removal target required by law, however, the weather conditions during 2010 ensured the wastewater treatment plant was unable to comply with the concentration standard during the 2nd, 3rd and 4th quarters. In Q2 and Q3 this was due to the fact that the underlying flow to the WWTP was 18% less than 2009, 20.1% less than 2008 and 10.5% less than 2007. The problem of the impact of flows on pollution taxes payable is highlighted in Q3 2010. During this quarter the WWTP removed 76.6% of the total nitrogen received, well above the 70% target, but still failed the quarterly tax charge as a result of the very low flows through the plant. In Q2 the performance of the plant and nitrogen removal was significantly impacted by the snow melt. This large volume of very cold water at the end of winter

resulted in poor de-nitrification hence low nitrogen removal rate compared to the same period in previous years. Note in Q1 the 10 mg/l standard did not need to be achieved as the temperature of the waste water was below 12 degrees.

Even given these extreme conditions the plant was able to average 71.5% removal of nitrogen over the full year in compliance with the current environmental standard.

The tables above clearly show that the nitrogen load has been increasing year on year for the last 4 years. This is primarily due to increased loads from domestic customers. This trend of increasing nitrogen load will continue as the city develops more buildings and the population increases and becomes more affluent.

The internationally accepted principle for wastewater charging is the "polluter pays principle", under this principle the regulator would not ask the water company to pay the cost for the pollution of another individual or business. If this were the case, then those responsible for the increased pollution would not be motivated to change their behaviours.

We would like to highlight that in addition to nitrogen removal the WWTP achieves very high standards for discharges into a water course, also meeting the 15mg/l BOD and 15mg/l suspended solids targets. This quality of effluent leaving the plant is a contributing factor in providing a cleaner environment for Estonians to enjoy. The environment-friendly approach of ASTV has been confirmed by the following recognitions:

- In 2006 ,Tallinn was removed from HELCOM's hotspots list as a result of the investments made into the wastewater treatment processes by ASTV;
- In 2005, ASTV was the first company in Estonia that acquired the internationally recognised environmental management certificate (EMAS)
- In 2010, the Ministry of Environment awarded the Company with a title of "Top Performer 2010 in Environment area" in the category of environmental management.

As demonstrated throughout this response, the company has consistently achieved the annual national and EU standard for nitrogen removal. The company has failed a quarterly tax charge for nitrogen concentration removal for reasons entirely outside of its control. In order to clarify the CA's view of regulation for pollution tax we have the following questions:

1. The amount of nitrogen pollution load coming into the treatment plant from domestic and commercial customers is increasing year on year. Does the CA intend to disregard the polluter pays principle and expect the company to face the cost of increased pollution load being generated by other parties?

2. The extreme winter in 2010 caused the temperature of the wastewater to reduce below the average which in turn severely reduces the effectiveness of the biological treatment stage of WWT in Q2 2010. What is the level of winter weather risk, which is a force majeure event that the CA feels should be paid for by the company?

3. Within the City of Tallinn much of the wastewater network is a combined system meaning that pollution load is generated directly from domestic and commercial customers, and indirectly from the weather. Does the CA expect the company to pay the pollution charges for pollution load generated by others over which it has no control?

4. The pollution tax calculation uses a quarterly mg/l calculation. Given the fact that ASTV operates a combined system the "l" part of the calculation is completely outside of the company's control. Using the CA's current thinking a water company could in terms of

volume pollute more but still achieve the concentration standard due to the effect of the weather, whilst a company that achieved a much better performance sending less pollution into the environment would be punished (i.e. a higher concentration in case of a lower pollution volume).Within the CA's regulatory methodology how will this problem be overcome?

In summary, the CA will appreciate that setting tariffs to incorporate the right level of pollution charge that motivates all parties (Ministry of Environment, water companies, customers, municipalities) to contribute to an improved environment is a multi faceted problem. Failure to involve all these stakeholder groups in the discussion regarding who and how pollution taxes should be paid could leave the water companies taking all the risks for factors outside of their control. This could lead to the application of regulatory measures that place the companies/industry in economic and financial distress, which is in contradiction with one of the CA's own objectives "application of regulatory measures that allow companies to remain viable economically and financially, i.e. to recover operating costs and to finance necessary investments out of own and external funds". Moreover, these are long term issues that require long term planning. Dealing with such matters on a rolling 12 month basis could lead to an unsustainable water industry that can only survive with subsidised support from local or central government.

If CA has reached to conclusion that ASTV or other industry participants should make additional investments to decrease the level of pollution charges, we kindly ask you to provide in your methodology and for the entire industry your recommendations on an appropriate level of additional investments, and, also for the entire industry, take the investments into account in calculating the tariffs (as the CA has done in other occasions)[1] and provide us and other industry participants as well with adequate transition time to make the investments considered as necessary by you and to achieve targets, which should be clearly set for the entire industry. Providing this analysis, means to fund the investments via tariffs and adequate transition time would be in compliance with regulatory best practises and recommendations of the National Audit Office of Estonia in recent audit on feasibility of the district heating sector[2].

The current changes in regulation and regulatory methodology have not yet answered the questions raised above and the roles of the respective participants. We have a reason to believe that by abandoning the polluter pays principle and requiring in your methodology ASTV and the rest of the industry to decrease the level of pollution charges without a transition period necessary to implement these changes the CA is repeating the regulatory malpractices that by now have significantly undermined the feasibility of the district heating industry[3]. However, the company looks forward to a professional dialogue with the CA, the Ministry of Environment and the City of Tallinn on how best to address this extremely important environmental issue.

Therefore, the company rejects that CA's position which states that **pollution tax paid for water pollution in the sum of 2 307 th € (36 093 th kr) in the price of water service is not justified. Moreover, from the evidence and discussion presented above, the company has clearly demonstrated that the following claim made by the CA is completely unjustified and that this subject requires a much more thorough and wider discussion before such statements can be**

[1] National State Audit Office, report „Riigi tegevus soojusvarustuse jätkusuutlikkuse tagamisel", page 21, clause 57

[2] National State Audit Office, report „Riigi tegevus soojusvarustuse jätkusuutlikkuse tagamisel", page 22-23, clause 61

[3] National State Audit Office, report „Riigi tegevus soojusvarustuse jätkusuutlikkuse tagamisel", page 1-2

made: „*/.../this is negligence of the water undertaking, which causes a higher water tariff for the customer. If ASTV has paid for nitrogen pollution loads at higher pollution charge rates as specified in EFA §24 s 1, then this indicates to anti-environment activities by the company. /.../"*

In the following we would like to additionally comment on the reasoning that serves as the basis for the CA's position:

CA's first reasoning: "*ASTV has not submitted detailed calculations on 2011 to CA (using Table 7), clearly detailing the formation of the water pollution charge: ie indicating which pollution loads ASTV has taken into consideration and which Environmental Fees Act § 20 charges have been applied to the pollution loads***."**

According to the explanations provided by ASTV to the CA, the pollution tax cannot be an input controllable by ASTV for any of the components impacting the extent of this tax. ASTV is not able to forecast these inputs and as a result of this the pollution tax to be paid in the future by the components of pollution tax and pollution tax rates. Thus on 16.02.2011 ASTV provided a confirmation to the CA *that in 2011, ASTV continues providing water services in the same areas than in 2010 and based on the assumptions listed by ASTV on 09.11.2010, the fee for a special use of water and pollution tax change first of all by the increase rate of the respective taxes*. ASTV has explained to the CA that the pollution tax cost forecasted for 2011 is based on the forecasts of 2010 submitted to the CA that has been adjusted with the increase rate of the pollution tax.

ASTV has repeatedly emphasised its preparedness to specify any data submitted in the Tariff Application if the CA submits assumptions based on trustworthy data that are different from these of ASTV. Also with regard to pollution taxes ASTV is prepared to make a more specific calculation compared to that submitted if the CA submits its vision regarding the incoming wastewater volume and temperature and the concentration of pollutants for 2011.

CA's second reasoning: "*CA's verification calculations, where 2011 environmental charges (as per EFA §20) were applied to 2010 pollution loads, gave a substantially lower result of 1 757 th € (27 485 th EEK), than the 2 5 19 th € (39 421 th EEK) planned by ASTV in the Tariff application."*

ASTV explained in the letter sent on 15.02.2011 that the water permit issued for ASTV does not limit the volume of nitrogen or any other substances (in tons or in kilograms) in the wastewater to be discharged to the sea, which is why the statement by the CA (section 3 on page 19 of the letter of 28.02.2011) that ASTV discharges pollutants into water bodies in a higher volume than allowed is not true. Taking into account the abovementioned explanations, ASTV believes that it is not correct to exclude the taxes to be paid with a higher rate due to reasons not controllable by ASTV from the calculation of allowed pollution taxes.

Tallinna Vesi has recognized the above trends and, as per the motivation and risk schemes inherent in the current Services contract, is in process of extending the treatment process to meet the increased storm water load. However, even with this extra treatment stage the uncertainty of weather patterns and flows will still not **ensure** compliance with the concentration standard resulting in higher pollution taxes. It must be recognised that there are circumstances, such as adverse weather conditions, that cause additional expenditure and, as a result, it is not unreasonable to have such events recognized and their impact reflected in any future assessment of operating costs.

In extra, we would like to emphasise that ASTV is applying for a tariff increase in line with the terms and conditions of the Services Agreement. When signing the Services Agreement, under which ASTV took on the cost-related risks which are not covered by the changes in CPI. Therefore ASTV's tariffs have changed in 2001-2010 only according to the principles agreed in the Services Agreement (CPI + k) despite the fact that the pollution charge has increased over the named period due to a combined effect of tax rates and pollution load by 1570% (incl. tax rates 711%) compared to the 51% change in CPI in the same period, whereas only the CPI has been included in the tariffs applied by the Company.

Flow/year	51 106 048	**2001**	45 921 085	**2010**	**2010/2001**	
	Pollution tax incl all coeficients and taxes th'EEK	Pollution tax rate EEK/ton	Pollution tax incl all coeficients and taxes th'EEK	Pollution tax rate EEK/ton	Pollution tax incl all coeficients and taxes th'EEK	Pollution tax rate EEK/ton
Pollutants:						
BHT7	340	2 710	4 049	21 363	1091%	688%
P	240	4 082	2 092	43 879	772%	975%
N	1 188	2 257	26 571	21 988	2137%	874%
BOD	302	1 370	2 699	5 399	794%	294%
Oil	70	4 327	40	35 650	-43%	724%
Zn, Cu, Cr, Ni			294	179 400		
th'EEK	**2 140**		**35 745**		1570%	711%
EEK/m3	**0,042**		**0,778**			

2) **CA's position: The price of water service includes cost of bad debts in the sum of 312 th € (4 887 th kr), which, is not allowed to be included into the tariff as per the Guidelines** with a following reasoning:

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.

ASTV considers the 99% collection rate of issued invoices achieved by the company to be a very good result in a situation where ASTV, similarly to other infrastructure companies, issues invoices and asks the customers to pay for the services after the services are provided. Although ASTV has implemented efficient debt management processes, which in case of worse scenarios end with a court ruling or in exceptional cases as an extreme measure with temporary closing of water supply, ASTV is not protected against the bankruptcy or malevolent behaviour of the service consumers if the debtors doe not carry out the court ruling.

ASTV has noticed the efficiency of closing water supply as a coercive measure for paying for water services. However, as a socially responsible company we have not considered it appropriate to extensively apply this measure on private customers for improving the collection rate of the invoices issued for water services. ASTV believes that water service is basic commodity, which is extremely

important in satisfying the hygiene needs of the population. Therefore we have not considered it to be a responsible solution to close people's water supplies in a situation in which for example the property management company has not forwarded the amounts paid by the residents to the company providing the water service.

ASTV is very interested in the vision of the CA regarding the solution in a situation in which for example the property management company is using the possibilities of the legal system of the Republic of Estonia for not paying the issued invoices and ignores the concluded payment schedules. ASTV has used competent legal advisers for solving such complicated situations, however, despite that we have not been able to collect 100% of the issued invoices. If the CA is aware of measures how it is possible to collect debts from bankrupt or malevolent debtors through court, then we kindly ask that the CA presents the respective know-how also to water companies under regulation. Also, we would like instructions from the CA regarding in which case and within which time period the water company should close the water supply of the private customers in case of a malevolent behaviour of the property management company if the issued invoices are not paid?

In summary, ASTV considers the debt collection rate to be a very good result and to our mind we are entitled to include the provision of bad debts made in justified cases into the allowed costs. ASTV believes that the CA should assess the efficient debt collection rate appropriate to the economic situation in case of each industrial sector and to allow including in the costs the cost of bad debts up to a respective rate and to forbid including in the costs the cost that exceeds the respective rate.

3) **CA's position: 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 company stipulated in §14 (2) clause 5 of the PWSSA;**

This basis for calculating the justified return is made up of two parts, these being the value of the regulatory asset base, multiplied by the Weighted Average Cost of Capital (WACC). The CA recognises these concepts in its analysis, and moreover, as an accurate justified return is fundamental for ensuring ongoing investment into the industry, the CA has, in other industries included as one of its main regulatory objectives, "*guarantee of acceptable return on invested capital for investors, i.e. at least equivalent return that they would obtain on investments with the same degree of risk."Within this* section we will base our response to the CA's rejection using this key regulatory principle, and of course the Services contract ASTV has with the City of Tallinn.

On pages 26 to 28 of its response the CA disputes ASTV's view of how the company believes the regulatory asset base could and should be calculated for privatised utilities. The CA disputes the view put forward by ASTV in the following areas.

1) Opening RAB
2) Annual Change in the RAB.

If we take each of these points in turn:

Opening RAB

Firstly, the opening RAB. ASTV has used the privatisation value as the basis for making this calculation. The CA however, whilst not actually calculating an opening RAB from privatisation in

2001, refers to clause 5.7 of its guidelines, which state that the residual book value at the end of the regulation period is used. By using this calculation the CA clearly rejects the company's view of the opening value for the RAB, but without ever justifying why this is incorrect.

In its response letter to the company dated 2 March 2011 (p3), the CA refers to the World Bank regulation guidelines (Resetting Price Controls for Privatised Utilities: A Manual for Regulators by Richard Green and Martin Rodrigues Pardina, 1999[4]).

Section 7 of the same World Bank document (Investment and the Regulatory Asset Base), proposes two clear methodologies for valuing the opening Regulatory Asset Base:

- *the initial asset base is the net asset value of the company (or its regulated business) at the time of privatization. In general, this should be measured at* ***replacement cost*** *(rather than historic cost), and* ***subsequently increased to take account of inflation****. This has the* ***advantage of reflecting the economic cost of the assets involved in the business****. Prices that are based on this asset value and the company's cost of capital are likely to be close to their efficient level. Or*

- *An alternative method—which could be used once (or if)* ***the company has been privatized—is to use the amount paid by investors****. There is a danger that this practice could lead to a circular valuation if the investors know that their valuation will be used to determine the asset base, and hence their subsequent returns. A high valuation would produce (and be supported by) high prices, while a lower valuation would lead to lower prices. In general, however, the initial retail prices will be determined before the price to be paid for the company. Those retail prices will thus imply a valuation, which should also be close to the amount investors are willing to pay for the company*

Nowhere in the above text does this guideline suggest that the net book value of fixed assets should be used. On the contrary, the World Bank suggests using replacement cost or privatisation value, subsequently increased to take account of inflation as this has the advantage of **reflecting the economic cost of the assets involved in the business**. (Note that the annual updating of RAB is discussed in the next section).

The limitations related to using residual book value are highlighted in the regulatory accounting guidelines developed by Ofwat:

"Historical cost accounts ('HCA') are recognised universally as a legitimate method of financial reporting but have a variety of limitations, in particular in regard to the return on capital earned in capital intensive industries with long asset lives such as the water industry. In the presence of inflation these limitations typically lead to:

- understated asset values;
- overstated profit measures; and consequently
- overstated returns on capital and distorted measures of total costs which persist even if inflation falls to zero."[5]

[4] Green, Richard, Pardina, Martin Rodrigues (1999). Resetting Price Controls for Privatized Utilities. A Manual for Regulators. Washington, D.C.: The Word Bank

[5] Ofwat (2007), 'Regulatory accounting guideline 1.04', February, p.4, paragraph 1.4.1.

This statement is also consistent with a regulatory approach that relies on the economic value rather than accounting book value, as used by ASTV to demonstrate that the returns made on invested capital since privatisation have not been excessive.

In its response to the recent tariff application, the CA does not seem to consider the improvements in quality and service performance that occurred since privatisation. In its response letter dated 28 February 2011, the CA points to price increases as a justification for its position against using the privatisation value as the opening RAB, but without considering related improvements in quality and service performance that the privatisation has delivered. To quote, "*due to the referred transaction the price of the water service should increase for consumers, because the regulatory asset base increases- At the same time there weren't any improvements in ASTV's PWSS system (no new investments have been carried out) there was just a change of owners. Pursuant to § 14 (2) of the PWSSA the change in the price of water service can only be the expenses made for 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*."

To enable discussion of this claim I would refer the CA to the objectives of the privatisation, the key bid award criteria, and the changes in service performance delivered in the past ten years.

The key component of the privatisation was to increase quality standards as quickly and as efficiently as possible. It was recognised that tariffs would have to increase if these higher standards were to be met and that the privatisation route was the most efficient way to achieve this goal. This was clearly stated in the minutes of the meetings of the privatising committee which we include as Appendix A. The privatisation process included a market led mechanism with the winning offer being given to the company that bid the lowest real tariff increases in order to achieve the stated quality standards. This bidding criterion was given a weighting of 60% in the award criteria and approved as part of the privatisation process. Furthermore neither ASTV nor its investors have ever sought to change this criterion; changes have only ever been made at the request of the City of Tallinn.

Since privatisation all quality and service improvement targets have been met or exceeded, delivering significant value to the citizens of Tallinn. In the supplementary information that accompanied our initial application we included detailed information that demonstrated the improvements made since privatisation and the Levels of Service that the company is required to achieve. For better understanding of quality improvements that have been made since privatisation and for a sample of those quality improvements since 2001, please see e.g. pages 22, 35, 39 of the 2009 LoS report, i.e. Appendix 3 of Annex 1 to ASTV's Tariff Application of 09.11.2010 as well as clauses 1.6-1.12 on page -25 of Annex 1 to ASTV's Tariff Application of 09.11.2010. Moreover the current regulatory system has established an independent authority to monitor and audit the performance of the company, i.e. to ensure it achieves the standards required by the contract. We believe ASTV is the only utility in the country, and certainly the only Water Company that is regulated in such an open and transparent manner.

As mentioned above, and demonstrated in the 2009 LoS report as well as in clauses 1.6-1.12 on page -25 of Annex 1 to ASTV's Tariff Application of 09.11.2010, there have been enormous changes to the PWSSS, both asset investments and operations, that have delivered huge improvements in the quality of product and service for the customer of ASTV and the citizens of Tallinn. To claim otherwise would be a complete misrepresentation of the truth and would deny the investor of its legitimate right to make the returns permitted under the terms and conditions of the privatisation for delivering this step change in quality and service. Furthermore, this evidence completely disproves the CA's point that "there weren't any **improvements in ASTV's PWSS system** (no new investments have been carried out".

Annual Change in the RAB

Once an opening asset value has been established, the RAB can be updated annually by adding any capital expenditures occurred during the year, removing depreciation and also adjusting for changes in the price level (for simplification, other adjustments, such as for working capital, are not discussed here). In this section I discuss the last of these elements, indexation for inflation.

The appropriate treatment of inflation indexation for the asset base depends on the approach taken to estimate the cost of capital. In general, the two following methods could be adopted:

1) *indexation of the asset base, combined with a real cost of capital*
2) *no indexation of the asset base, combined with a nominal cost of capital*

In theory, both approaches allow the company to recover the same returns (in real terms) over the life of the assets, although the level of returns in any given year may differ (see the Appendix B for a stylised example). Importantly, both approaches allow the company to recover inflation over the life of the assets.

The approach adopted by ASTV in our recent tariff application consisted of the first approach. This is the most common approach adopted by regulators, and in particular it is consistent with the approach adopted by Ofwat, and is also the approach that the World Bank uses in its Regulation Guidelines.[6]

In contrast, the CA appears to favour an approach based on an inconsistent use the second method, although it does not explicitly state so or explain why.

In paragraph 3 on P28 of the CA's response the CA states "*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.*"

If we are to take the words of the CA literally would be to assume that the concept of the time value of money does not exist. It appears to suggest that capital invested should not be protected from any loss of purchasing power with the result that investors are expected to take all inflationary risk. The principle of financial capital maintenance will not be applied.

Moreover, this position is completely at odds with the World Bank Guidelines referred to by the CA themselves. To re-quote section 7, Investment and the Regulatory Asset Base, "in general, this should be measured at **replacement cost** (rather than historic cost), and **subsequently increased to take account of inflation**. This has the **advantage of reflecting the economic cost of the assets involved in the business**".

[6] See Section 7 in Green, Richard, Pardina, Martin Rodrigues (1999) as in footnote 2 above.

Further down the page the CA goes on to say „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".

However the change in CPI is a cost to those that have invested capital in the company, but in the opinion of the CA this is not a cost that should be allowed in the tariff. To take this to its logical conclusion would be to say that tariff's, in real terms, should reduce by the value of CPI on invested capital each year.

This approach to taking CPI into account in tariff setting is made even more confusing when one considers the statement made by the CA on page P33 of its response, "CA considers it appropriate to use a nominal WACC in calculating justified profitability". Using a nominal WACC for Estonia should include the very same component of CPI, and as such cost, that the CA says it does not allow. Within the information sent to support ASTV's application we used a real cost of capital (i.e. net of inflation) to ensure that CPI was not double counted and as such our suggested real cost of capital is, at 6.5% lower than that suggested by the CA – note the World Bank Guidelines recommend inflating the asset base and using a real cost of capital. Also Estonian courts[7] have established that requiring a regulated company to take into account only historic value of the assets in calculation of the Regulatory Asset Base and disregarding the impact of CPI are in fundamental breach of company's constitutional rights. Therefore court has found such rules to be unconstitutional and administrative acts based on such rules to be illegal.

It must be pointed out that when correctly and consistently applying (using the same figure for CPI) the principles used by ASTV (Real WACC on nominal RAB as recommended by the World Bank) in its application, and those used by the CA (nominal WACC on real RAB) the amount of allowed revenue generated over the lifetime of an asset/invested capital would give exactly the same answer. I have included a stylised example in Appendix B to illustrate this point.

The subject of inflation and how it is incorporated within the tariff calculation methodology has been the subject of an ongoing discussion between ASTV and the CA over the past few months, with many of ASTV's questions still remaining unanswered. For reference I have appended the latest letter sent to the CA dated 2 March 2011, for which we anticipate a response by 4 April 2011 (Annex C).

In summary, the comments made by the CA are confusing as it is unclear whether the methodology used intends to protect invested capital from inflation. On the one hand the CA states "h*owever, 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",* but on the other hand it goes on to state *„When RAB is calculated using Guidelines article 5.7. the undertaking's net book value of fixed assets as reflected in the bookkeeping, as has been done by CA in article 8.2 of this letter, then WACC should be nominal.. CA considers it appropriate to use a nominal WACC in calculating justified profitability, because it has taken into account investment risk levels, economic cycle phases, inflation etc."*

Therefore it would be extremely helpful if the CA would clearly explain its regulatory methodology. We ask the CA to respond in writing to clearly explain its position regarding the regulatory model

[7] Please see Supreme Court 25 May 2010 ruling no 3-4-1-21-09m regarding Tallinn Administrative Court decision of 11 September 2009 in administrative case no 3-05-381 sections 5 17) and 18) - http://www.nc.ee/?id=11&tekst=222525378.

chosen and how it will treat inflation. We have drawn your attention to several discrepancies between your methodologies and internationally recommended regulatory practices. Additionally the State Audit Office of Estonia has found your regulatory practises in district heating, which are used as a model for regulating water utilities, to be incompatible with international practices, generally non-transparent[8] and cause discrimination of both companies and their customers[9] . In this situation we have a reason to doubt in correctness and soundness of regulatory model applied by CA and we must ask you to provide clarifications on your regulatory model, sources of its basis and explanation of choosing the regulatory model the CA is currently applying[10]. Lack of these clarifications and failure to prove objective, technically and financially sound basis of your regulatory practises can only be regarded as an error of discretion resulting in annulment of your decision[11]. ASTV emphasises the need to avoid repeating the mistakes that have undermined the sustainability and development in other industries regulated by the CA.

Within this section we have clearly demonstrated that the approach used by ASTV to calculate the Regulatory Asset Base, both opening and ongoing, is fully in accordance with best practice principles, including the World Bank, and can and should be used to evaluate the financial and economic performance of ASTV since privatisation in 2001. On the other hand, the methodology for calculating the WACC proposed by the CA is still unclear from a regulatory perspective (what regulatory methodology is being used and why?), does not appear to comply with the methods suggested by the very organisations it references – World Bank Guidelines, and is not able to prove that "*guarantee of acceptable return on invested capital for investors, i.e. at least equivalent return that they would obtain on investments with the same degree of risk."*

As a consequence of the above we reject the CA's claim that ASTV's approach to calculating the RAB does not comply with best practice regulatory principles. It may not accord with the CA's recommendatory methodology however it does respect the regulatory principles proposed by the World Bank, the original privatisation agreement and the CA's own regulatory objectives "*guarantee of acceptable return on invested capital for investors, i.e. at least equivalent return that they would obtain on investments with the same degree of risk."*. To claim otherwise would be asking investors to automatically lose ALL the monetary premium paid on privatisation, this in spite of achieving all quality and service aspects of the privatisation agreement. I am certain that no professional regulatory organisation, such as the CA, would unilaterally break a fully legal contract, forcing an investor to lose its money, without making a complete and independently verified analysis of the whole privatisation contract.

Weighted Average Cost of Capital

The other component of the CA's calculation of the justified profitability is the Weighted Average Cost of Capital (WACC). This ASTV response on the WACC is structured as follows. I firstly reiterate the basis of ASTV's approach to calculating the WACC, and discuss the CA's overarching criticism of the ASTV approach. As a means of justifying further the ASTV approach, I provide more detail on the Ofwat approach, upon which the ASTV WACC is based (suitably adjusted for Estonian

[8] National State Audit Office, report „Riigi tegevus soojusvarustuse jätkusuutlikkuse tagamisel", page 37, section 111; page 40, section 115

[9] National State Audit Office, report „Riigi tegevus soojusvarustuse jätkusuutlikkuse tagamisel", page 3; page 40, section 116

[10] The European Court (Grand Chamber), 8 June 2010, Case C‑58/08, para 51, 53, 68, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:62008J0058:ET:HTML

[11] The Administrative Procedure Code, Article 4(2)

circumstances). Finally, I comment on how the CA has derived each of its WACC parameters (to the extent this is possible from the information the CA has provided), and summarise the position as I currently see it.

On P32 and P33 of its response, the CA outlines its views on how it calculates the WACC. For water undertakings the CA states that it believes the WACC for water undertakings is a "nominal" WACC of 8.18%. At the bottom of P32 it lists the individual components that make up the WACC and the non P33 it states "The Guidelines for calculating the weighed average cost of capital WACC 2011" includes detailed explanations and justifications for determining and using all the WACC calculation components (risk-free 10-year German bond rates, Estonian country risk premium etc)."

It is true that the CA lists each of these components on its website however it does not in any way offer a detailed explanation of why these reference rates have been chosen and why they are the most appropriate rates for the water sector in Estonia. Moreover, unlike in the other sectors it regulates (heating, electricity, gas,), in the water sector the CA has not included in its methodology the principle of "*guarantee of an acceptable return on invested capital for investors, i.e. at least equivalent return that they would obtain on investments with the same degree of risk."* However, in our response we assume this is an omission, as we feel certain that the CA would wish to apply the same **main regulatory objectives** as in other industries, and in addition, as the CA makes reference to its regulation of these industries in its response letter of 2 March 2011 it would be fair to assume the same regulatory objectives. ***Therefore throughout our response we have worked to prove that our WACC meets with the CA's regulatory objective mentioned above, whilst also demonstrating some of the inconsistencies in the CA's approach that require more detailed analysis and discussion.***

ASTV approach

Firstly, I would like to take this opportunity to re-iterate the factors considered in the analysis presented by ASTV in its WACC calculation. Importantly, ASTV's analysis used the same valuations in its WACC calculations as those used by Ofwat, adjusted for Estonian country risk. The Ofwat methodology was chosen as it regulates privatised utilities (like ASTV) and is known to apply one of the most advanced regulatory regimes across the world.

Moreover the components and valuations used in Ofwat's WACC have been subjected to a significant amount of challenge from the water industry in the UK and economic experts. Ofwat issues its draft proposals with the support of economics experts and requests comments from the industry and other experts to ensure their calculations are as robust as possible, i.e. challenge is welcomed and the inputs of all stakeholders groups are considered before the final determination is made.

In order to assist the CA with their understanding of Ofwat's WACC we have appended the detailed analysis, consultations and justifications provided by Ofwat to the general public and the industry (see appendix on a CD detailing the analysis[12]). I apologise that these document are in English, however they will give the CA an understanding of how seriously the regulator takes this subject, and how it uses a transparent process and external advice to protect customers and the industry from miscalculation.

By using these thoroughly tested WACC principles ASTV has ensured that the evidence provided to support our tariff application was rigorous and has been subjected to professional challenge.

[12] Also available at: http://www.ofwat.gov.uk/pricereview/pr09phase3/draftdeterminations, http://www.ofwat.gov.uk/pricereview/pr09phase3/finaldeterminations.

CA's disagreements with the ASTV approach

At the top of P33 the CA states „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 the Guidelines article 5.7. the undertaking's net book value of fixed assets as reflected in the bookkeeping, as has been done by CA in article 8.2 of this letter, then WACC should be nominal. ASTV however uses a „vanilla" WACC, which the CA does not approve. CA considers it appropriate to use a nominal WACC in calculating justified profitability, because it has taken into account investment risk levels, economic cycle phases, inflation etc." In the interests of openness and professionalism it would be in everyone's interests to understand the rationale behind this wording. I will take each of the CA's phrases in turn:

- *The WACC used by ASTV does not correlate with the WACC used by the CA and the principles of the guidelines.* As the CA itself says, these are guidelines and the methodology is recommendatory. However the WACC calculation components used by ASTV are exactly the same as those used by the CA, and ASTV has used the Ofwat methodology which uses the same set of regulatory principles as the CA. Therefore it would be helpful and professional if the CA would state its reasons for not agreeing with ASTV's WACC calculation.

- *When RAB is calculated using Guidelines article 5.7. the undertaking's net book value of fixed assets as reflected in the bookkeeping, as has been done by CA in article 8.2 of this letter, then WACC should be nominal.* In the interests of being helpful and professional, I would like the CA to state why it believes this is the case, and the regulatory principle it is applying? On page 11 and Annex B of our response we have clearly demonstrated that over the lifetime of the asset that applying *indexation* of the asset base, in combination with a *real* cost of capital gives the same result as when using *no indexation* of the asset base, combined with a *nominal* cost of capital. The CA appears to suggest it is applying the latter, I would appreciate if it could confirm that this is the case?

- *ASTV however uses a „vanilla" WACC, which the CA does not approve.* ASTV finds this statement somewhat difficult to understand. A vanilla WACC does not take into account the impact of taxes, and therefore can be either nominal or real. If the CA could please explain which part of a "vanilla" WACC it does not agree with?

- *CA considers it appropriate to use a nominal WACC in calculating justified profitability, because it has taken into account investment risk levels, economic cycle phases, inflation etc. Firstly, I would like to point out that just because the CA has calculated a nominal WACC it does not necessarily mean all these factors have been taken into account. However if* the CA has carried out such a thorough analysis it would be helpful and professional if the CA would share the results of this analysis with the company and the industry? To date the CA has not published any of this more detailed analysis, if it were to do so this would significantly improve communication and understanding between all parties, and as the CA itself states in its letter of 18 March 2011, *"Pursuant to §5 (2) of the APA, administrative procedure shall be purposeful, efficient and conducted avoiding superfluous costs and inconveniences to persons"*.

Specific comments on the CA's WACC parameters

As an initial point ASTV notes that the current WACC calculated by the CA is 8.18%. This is very close to the WACC used by the CA in its simulated analysis of ASTV's performance in 2007 and

2008, which was 8.31% for both years. Given the impact of the global financial crisis ASTV finds this extremely surprising and therefore asks the CA to detail its reasons for believing that the investment environment in Estonia is almost exactly the same as the investment environment pre-crisis?

Risk-free rate: If I could take this opportunity to question the CA on why it feels its reference rates are appropriate? Firstly, the use of the yield on risk free German ten year bonds; in fact what the CA has used is an average of ten year German bonds over the past five years. Crucially, this measure includes past estimates for *German* inflation. I am keen to understand why the CA believes that the past averages for German ten year bonds are a good indication of the future? Secondly, one would have to ask whether the CA believes German inflation is a good proxy for Estonian inflation? Over the past five years Estonian inflation has been on average over 3% per annum higher than Estonian inflation – we have written to the CA on numerous occasions requesting further information on this topic (appendix C contains our latest letter), however to date we have not received a "detailed explanation" of why this reference rate is accurate.

Equity Beta. Here the CA has calculated an equity beta of 0.88. The CA bases its equity beta estimation on the average equity betas, gearing and tax rates for 16 water companies. In order to better understand the rationale behind the CA's calculation we would make the following observations, and ask the following questions.

- Has the CA has considered the business and risk characteristics of the chosen comparators? If yes, could it please share this information with the company for further discussion on the WACC? It Is important to consider risk differentials arising from the difference in regulatory regimes and other company-specific factors while using assets betas from comparators.

- It is incorrect to average equity betas for a sample of companies as the resulting estimate will reflect a range of different financial risk profiles. The appropriate method would be to average the *asset* betas for each of the companies in order to arrive at an estimate of ASTV's asset beta.

- By using the Miller formula, the CA implicitly assumes that the amount of debt remains at a constant level (in currency terms), as opposed to a constant proportion of debt. However, the CA's assumption on taxes (0%) effectively renders the Miller formula equivalent to the more common Modigliani–Miller formula.

- If the CA could provide information on the period of estimation or frequency of data that were used to estimate the equity beta for the sample comparators, this would again be helpful and professional?

Equity risk premium: The CA uses an equity risk premium (ERP) estimate of 5% based on various sources, including the Council of European Energy Regulators (CEER) and regulatory precedent. Although using precedents from other EU regulators may be appropriate, has the CA carefully considered important factors such as the period over which the ERP was estimated—my question relates both to the duration of the period over which the estimate was made, and the extent of recent data that was used in this estimate (it would be particularly unfortunate if the recent credit crisis were not reflected in these estimates)? if applicable, the statistical significance of the estimate? and the validity of the results for the Estonian market? If the answer to these questions is yes, in the interests of transparency we would request that the CA shares this information with ourselves and the rest of the industry?

Debt premium. The CA calculates a debt premium of 1%. In its calculation the CA relies on information from debt premiums estimated by *energy* regulators in the EU to estimate ASTV's debt

premium. When using these estimations, how has the CA ensured that it uses the debt premium of comparator companies whose debt is rated at a credit rating consistent with the regulator's target credit rating? Furthermore how has the CA ensured that the set of comparators share similar risk characteristics to ASTV?

Country-risk premium. This relates to the additional compensation demanded by investors for investing in Estonian assets compared with similar assets in a benchmark country.

The CA incorporates the Estonian country-risk premium through uplift to the pre-tax cost of capital. Its estimate (1.9%) is based on spreads between the short-term Euribor and the Talibor rates, which reflect differences in short-term rates. Ideally, the country-risk premium should be calculated using spreads on securities that have an investment horizon similar to that of the investment. Looking forward, in the absence of traded Estonian government bonds, and the short term Talibor rate, what reference rate is the CA now using? ASTV has considered Credit Default Swap (CDS) spreads for the Republic of Estonia, for example the ten-year Estonian CDS, which exceeded German CDS by approximately 150bp on average in the twelve month period prior to making our application. It should be noted that these rates do not include a factor for the inflation differential.

Gearing. The CA uses a gearing assumption of 50%. If the CA could explain in detail why it has immediately imposed a target gearing on a company when knowing nothing about its financial position or the financing strategy of its owners? Estimates of gearing for regulatory purposes are usually based on a *notional* gearing level—the gearing level which is consistent with a target credit rating, which is usually an investment-grade credit rating. What is the target credit rating the CA proposes for ASTV and the rest of the industry?

Inflation: ASTV has used a real cost of capital (net of inflation) in its calculations and the CA has used a nominal cost of capital. The table below has adjusted the CA's nominal cost of capital and adjusted it for Estonian and German inflation to show the real cost of capital in each scenario.

Cost of capital parameters	ASTV	CA German Inflation(ave)		CA Estonian Inflation (ave)	
	real	real	nominal	real	nominal
Cost of equity					
Risk-free rate	2,0%	1,9%	3,6%	-0,6%	3,6%
Asset beta	0,40	0,44	0,44	0,44	0,44
Equity beta	0,80	0,88	0,88	0,88	0,88
ERP	5,4%	5,0%	5,0%	5,0%	5,0%
CRP	1,5%	1,9%	1,9%	1,9%	1,9%
Cost of equity (post-tax)	7,8%	8,2%	9,9%	5,7%	9,9%
Cost of equity (pre-tax)	7,8%	8,2%	9,9%	5,7%	9,9%
Cost of debt					
Debt premium	1,6%	1,0%	1,0%	1,0%	1,0%
Cost of debt (pre-tax)	5,1%	4,8%	6,5%	2,3%	6,5%
Cost of debt (post-tax)	5,1%	4,8%	6,5%	2,3%	6,5%
Other parameters					
Gearing	50,0%	50,0%	50,0%	50,0%	50,0%
Taxes	0,0%	0,0%	0,0%	0,0%	0,0%
Inflation		1,6%		4,2%	
WACC (pre-tax)	6,5%	6,5%	8,2%	4,0%	8,2%
WACC (vanilla)	6,5%	6,5%	8,2%	4,0%	8,2%
WACC (post-tax)	6,5%	6,5%	8,2%	4,0%	8,2%

Note - average is average over the last five years

What the above table demonstrates is the importance of ensuring that the risk free rate includes the correct adjustment for inflation. In the above example we can see that then adjusting the CA's nominal WACC for German inflation then the real WACC (net of inflation) is the same as that used in ASTV's real WACC (net of inflation) calculation. However when adjusting the CA's nominal WACC for Estonian inflation then the real WACC (net of inflation) is 2.5% lower than the other two calculations.

To further highlight this problem we have made an additional analysis. The table below takes uses the CA's methodology and inputs to calculate and compare the allowed "real" WACCs for Germany and Estonia. Here we fairly assume that all business specific factors are the same, therefore only the country risk premium should be different. Germany being a "AAA" rated country and the strongest economy in Europe has a country risk premium of 0%.

Cost of capital parameters	CA German Inflation(ave)		CA Estonian Inflation (ave)	
	real	nominal	real	nominal
Cost of equity				
Risk-free rate	1,9%	3,6%	-0,6%	3,6%
Asset beta	0,44	0,44	0,44	0,44
Equity beta	0,88	0,88	0,88	0,88
ERP	5,0%	5,0%	5,0%	5,0%
CRP	0,0%	0,0%	1,9%	1,9%
Cost of equity (post-tax)	6,3%	8,0%	5,7%	9,9%
Cost of equity (pre-tax)	6,3%	8,0%	5,7%	9,9%
Cost of debt				
Debt premium	1,0%	1,0%	1,0%	1,0%
Cost of debt (pre-tax)	2,9%	4,6%	2,3%	6,5%
Cost of debt (post-tax)	2,9%	4,6%	2,3%	6,5%
Other parameters				
Gearing	50,0%	50,0%	50,0%	50,0%
Taxes	0,0%	0,0%	0,0%	0,0%
Inflation	1,6%		4,2%	
WACC (pre-tax)	4,6%	6,3%	4,0%	8,2%
WACC (vanilla)	4,6%	6,3%	4,0%	8,2%
WACC (post-tax)	4,6%	6,3%	4,0%	8,2%

The calculations in the table above are fully in accordance with all best practice regulatory regimes, these are text book examples of how to calculate a "real" WACC from a "nominal" WACC and are supported by a multitude of academic and business literature and practice.

From these tables we can clearly see that the "real" allowed WACC for a water company in Germany is higher than that for the same company in Estonia, 4.6% compared to 4%, suggesting that investing in an Estonian asset is less risky than investing in the same asset in Germany. All other factors being equal one would expect the difference in "real" WACC to be equivalent to the country risk premium.

This point is further supported when one compares the "real" WACC allowed by Ofwat in its 2009 Price Determination (PR09). In this determination Ofwat allowed a "real" WACC of 4.5% for Water and Sewerage companies (see Table 46 on P128 of Ofwat – Future Water and Sewerage Charges 2010-15, Final Determinations, again higher than the WACC allowed by the CA, but interestingly very much in accordance with the allowed "real" WACC in the German example in the table above. It

could be that the CA has considered other factors, however to date none of this information has been shared with the industry or publicised. Also Energiekamer, the organisation that regulates the Dutch electricity transmission network allowed a pre tax „real“ WACC of 5.3% (net of inflation of 1.5% to 1.6%) in its regulatory determination on 13 September 2010[13]. Which is again consistent with Ofwat and our above calculation for a German company, but is higher than the „real“ WACC allowed by the CA.

As a consequence we believe the CA needs to revisit some of the inputs into its WACC calculation. In addition ASTV requests if the CA would be prepared to subject its WACC calculation to verification and challenge made by independent international experts? This we believe would be in the interests of all stakeholders, as the more rigourous the WACC calculation used by the CA, the greater the benefits for today's customers and future customers.

We would like to point out that for simplifying the previous samples we have used a tax rate of 0% even though in Estonia income tax is imposed on dividends. Due to that ASTV had emphasised in its Tariff Application that we used post-tax WACC and a tax component was included into the calculation of justified revenue. In the calculation of WACC demonstrated in Table 12, the CA has not taken into account the impact of income tax on dividends, at the same time the CA has not also commented the reasons for not taking into account the income tax component used in ASTV's calculation. In the past the CA has commented that it does not believe an allowance for taxes should be permitted, neither as a cost within the allowed revenues or as an adjustment through the WACC. The CA makes this point as it believes dividend payments are voluntary and as such making a annual payment to shareholders on their capital invested is somehow discretionary. The referred Section 9 of the World Bank guidelines clearly state that 'if post-tax rate of return is used, then income tax that the company presumably needs to pay must be included into the allowed costs'.

Before we calculate the rate of return, we must know whether to use pre-tax or post-tax returns. The important thing is to be consistent when performing the calculations to determine the company's revenue requirements. If a post tax rate of return is used, the tax payments the company is expected to make must be included as part of the costs it is allowed to recover. This methodology is consistent with the approach used by ASTV in the evidence it sent to support its application. On 2 March 2011 ASTV wrote to the CA querying this very point but to date has not yet received a response. A copy of this letter is attached as appendix C.

Summary

One can see from all of the above that there are many aspects of its WACC calculation where ASTV would greatly appreciate more transparency from the CA regarding the approach taken and assumptions made. In addition, I also consider that there are a number of areas where the assumptions that the CA has made (where these are transparent) are challenged by ASTV. Regulatory best practice is an iterative process and all regulators should welcome challenge as this will bring long term sustainable benefits for the industry and its customers. Furthermore the CA's methodology is recommendatory and not obligatory. If this is the case the company would expect the CA to engage in full dialogue with the company and the water industry on the questions raised above and in our previous correspondence.

[13] Bijlage bij het besluit van 13 september 2010 met kenmerk 103339_1/136.BT831, Resolution Clause 101, p25

Based on all information publicised to date, the analysis above clearly demonstrates that one of the CA's main regulatory objectives "*guarantee of acceptable return on invested capital for investors, i.e. at least equivalent return that they would obtain on investments with the same degree of risk.*" is not being met within its WACC calculation. As a consequence we reject the CA's statement that ASTV's WACC calculation component used in the tariff calculation is not justified. It has been calculated differently from the CA's recommended methodology but as we have proved, throughout the document, ASTV's WACC does meet with the CA's key objective….., and through the Ofwat regulatory process the values have been subject to independent challenge and scrutiny.

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

ASTV has not intended to increase the price difference between physical and legal persons. The calculation made by the CA derives above all from the fact that in submitting the Tariff Application ASTV converted the post price increase tariffs applied by ASTV into euros and then rounded the tariffs down. As the CA did not approve ASTV's tariffs so that ASTV could have implemented the tariff increase agreed on in the Services Agreement from 1 January 2011, then ASTV converted both, the private persons' tariffs and the commercial tariffs valid in 2010 into euros due to the transition to euros on 1 January 2011 and then rounded them both down. Taking into account the tariffs calculated respectively on different sources and times, the CA has been left with an erroneous impression as if ASTV intends to increase the difference between the tariffs for private and legal persons.

The law sets out a time for equalising the tariffs, however, it has not established a more specific method how the equalisation should take place. Thus ASTV has both in its Tariff Application submitted on 09.11.2010 as well as in the letter specifying the latter asked for an instruction from the CA regarding how the CA recommends to equalise the tariffs (i.e. whether should increase only the tariffs of private persons by freezing the tariffs of legal persons or should decrease the tariffs of legal persons while simultaneously increasing the tariffs of private persons etc). Hereby ASTV reiterates the request submitted already on 09.11.2010 that the CA would instruct the water company in the issue that was left unspecified by the legislator. In our opinion, calculating the tariffs on the basis of allowed revenues is a technical issue of implementation, which cannot be a basis for a non-approval of the Tariff Application.

5) **CA's position: approval for the price of water service also for years 2012-2015 has been applied with an annual predetermined price increase, which is not in compliance with the PWSSA.**

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. ASTV confirms that it is aware and prepared to comply with the provision of the PWSSA that obligates the water company to inform the CA in case of an occurrence of circumstances, which may impact the valid price of water service more than by 5%. However, the PWSSA does not forbid approving longer-term principles of changing the tariffs.

We would like to point out that the 12-month regulation period chosen by the CA is not based on any provision of the PWSSA, but it is an exceptional practice by a regulator, which is not supported in any

way by the legal act regulating the field. In addition to the best practice implemented in Europe that ASTV is aware of, pursuant to which the regulation period is usually 3-5 years, also the guidelines of the price controls for privatized utilities by the World Bank referred to by the CA has given recommendations regarding the length of the regulation period, and the guidelines emphasise that the length of price control period is used as an efficiency motivator. In the examples brought out by the World Bank the lengths of the price control periods are 5 and 10 years, however, in case of the latter there is an interim review after 5 years.

Legal situation

At this point, we apologise for the need to remind you why we feel that you need to be mindful of certain EU law principles when reviewing our tariff application so as not to cause UNILATERAL modification of the privatisation regime. All the EU treaties (the original treaties, TEU and TFEU) are contracts signed between states, i.e. they are international treaties. § 3 of the Estonian Constitution clearly states, that general principles and norms of public international law are an inextricable part of the Estonian legal system. Hence, the basic freedom of movement principles in the TFEU are fully enshrined in the TFEU and outrank any principles or provisions stipulated in the Estonian laws. Until a national law provision, which contravenes EU law, such a provision should be interpreted in such a way as to be in line with TFEU, in this case, in line with articles 49 and 63 TFEU. One would not expect the application of national laws by an EU Member State in a way which is contrary to EU law basic principles, as this displays total disregard for EU law and the very foundations of the fundamental freedoms.

We would also like to disagree with your interpretation of the standing of your pricing methodology. According to your explanations as of 02.03.2011 you consider that the legislator's aim in allowing the CA to establish common principles for tariff applications of water companies was to harmonise the regulatory practice and to "ensure the equal treatment of the customers of all water undertakings that are under different regulators.". However, may we point out that § 14(9) of PWSSA states clearly that: "*The CA shall compose and publish on their website* ***recommendatory*** *pricing principles for the calculation of the price of water services.*" If the legislator had wanted to make these pricing principles mandatory for all water companies to apply, the wording used would have been "mandatory pricing principles" or "obligatory pricing principles" or "compulsory pricing principles". Recommendation means that these are guidelines only, to be applied as a guide when compiling tariff applications by companies that lack experience when submitting such tariff applications. Moreover, the coordination proceedings envisaged for the approval of the tariffs warrants and requires that the applications are checked as submitted. Instead, you have taken a (too) wide margin of discretion in administrative proceedings and forced us to resubmit part of the information, which was already made available to you on 09.11.2010, in the format that you requested and you refused to initiate proceedings until we did so. Claiming that you are requesting the tables you issued to be filled as otherwise you are not able to understand or process our tariff application.. As a consequence, you completely ignored our original application and supporting documents, including the building blocks model verified by international experts. When the law says something is a recommendation, it cannot be *de facto* treated as compulsory.

Furthermore, although the PWSSA does not make it compulsory, under the Administrative Proceedings Act you have a margin of discretion to involve experts when conducting administrative proceedings. While it transpired that your position differs widely from that of the applicant and whilst for the first time ever you were dealing with an applicant who was a privatised company and the first water company ever to apply for tariffs to be approved, you chose not to involve any experts when assessing our application.

ASTV's privatisation and Services contract

ASTV is a privatised company, it was privatised on the terms and conditions set down by the Republic of Estonia itself. This is a privatisation contract and Services Agreement with a twenty year term, and they were designed to ensure that the owners could make a return on their invested capital over the lifetime of the contract. Therefore, before making any judgements or comments it is imperative, and professional for the CA to make a detailed review and analysis of the returns made since privatisation and based upon the privatisation agreement. To not do so would amount to an unsubstantiated unilateral breach of contract, midway through the contract. As supporting evidence to our tariff application we sent a detailed independently verified financial model and report that demonstrated that the returns made by the investor were in accordance with internationally acceptable norms. Within its response the CA has not presented any evidence to suggest otherwise, other than saying it does not agree with any of the terms and conditions of the privatisation contract (service levels, operations, and tariff mechanism). In the interests of professional dialogue towards a partner who has always fulfilled all aspects of the privatisation contract the company asks the CA to send a detailed analysis of why it disregards the terms and conditions of this contract,? And why it believes the investor should not receive a fair rate of return on its capital invested for the significant improvements made to the service since 2001?

In conclusion, we are of the opinion that the Tariff Application submitted by ASTV is in compliance with the international best regulation practice and not in contradiction with the PWSSA.

Taking into account the positions expressed by ASTV in the Tariff Application submitted on 09.11.2010, in the explanations given to the CA in the months that followed as well as in our 29.03.2011 letter and all its annexes, **we kindly ask you to approve the prices of services in Tallinn and Saue City in compliance with the principles of the Services Agreement concluded between ASTV and the City of Tallinn**.

Appendices:
A. Minutes of the 23.11.2000 meeting of the privatising committee
B. Stylised example to illustrate the similarities between the two following approaches to determining allowed revenues.
C. ASTV's letter No 6/1073392-3 of 2 March 2011 to the CA