

1 (b)(iii) 2 Cost of capital and its calculation methodology

(Source: *Methodology for the determination of the tariff items for gas transmission* ("Official Gazette" nos. 85/13, 158/13, 118/15), Article 14.

(1) Planned amount of WACC for the regulatory period is calculated according to the following formula:

$$WACC^p = \frac{re}{1 - P} \times \frac{E}{E + D} + rd \times \frac{D}{E + D}$$

where:

$WACC^p$ – planned amount of WACC for the regulatory period (%),

re - rate of return on equity (%),

$E/(E+D)$ - share of equity in total capital structure (%),

rd - rate of return on debt (%),

$D/(E+D)$ - share of debt in total capital structure (%),

P - income tax rate (%).

(2) As a target share in the capital structure for the calculation of WACC for the regulatory period referred to in paragraph 1 of this Article, the share of equity in the amount of 50% and the share of debt in the amount of 50% are prescribed.

(3) The rate of return on equity is established by applying the model relying on the capital asset pricing model (CAPM model) according to the following formula:

$$r_e = r_f + \beta \times (r_m - r_f)$$

where:

r_e - rate of return on equity (%),

r_f - risk-free rate of return (%),

r_m - rate of return on diversified market portfolio (%),

$r_m - r_f$ - market risk premium (%),

β - variability coefficient of yield on operator's shares in relation to average variability of yield on market portfolio.

(4) The risk-free rate of return (r_f) is determined on the basis of the nominal interest rate of the last domestic or international ten-year bond issued by the Republic of Croatia.

(5) The variability coefficient of yield on operator's shares in relation to average variability of yield on market portfolio (β) reflects the investment risk level in the energy activity of gas distribution in relation to the investment risk on the market, and can be established on the basis of the comparative analysis of the variability coefficients of yield on gas system operator's shares applied in the regulatory mechanisms of European countries.

(6) The rate of return on diversified market portfolio (r_m) is determined as the sum of the risk-free rate of return (r_f) and market risk premium ($r_m - r_f$) established on the basis of the expected rate of return on diversified market portfolio in the Republic of Croatia.

(7) The rate of return on debt (r_d) equals to the weighted average interest rate on investment loans used by the operator to finance regulated assets, whereby the interest rate on investment loans is taken into account up to the level of rationally and prudentially borrowed funds. If the operator does not use investment loans to finance regulated assets, the rate of return on debt (r_d) is determined as an average interest rate of banks on long-term loans in HRK with a foreign currency clause approved to trading companies in the Republic of Croatia, according to the data on average monthly interest rates in the last 12 months from the last published monthly bulletin of the Croatian National Bank.

Table 7 Elements for determining WACC for the regulatory period

WACC elements	%
Rate of return on equity - r_e (%)	5,34%
Risk-free rate of return - r_f ("o)	2,75%
Variability coefficient of yield on operator's shares in relation to average variability of yield on market portfolio	0,54
Market risk premium - $r_m - r_f$ (%)	4,80%
Rate of return on diversified market portfolio - r_m ("o)	7,55%
Share of equity in total capital structure (%) - $E/(E+D)$ {%}	50,00%
Rate of return on diversified market portfolio - r_d (%)	3,92%
Share of debt in total capital structure (%) - $D/(E+D)$ {%}	50,00%
Income tax rate - P (%)	18,00%
Planned amount of WACC for the regulatory period - WACCP (%)	5,22%

Source: Decision by CERA dtd 15 December 2017; Table 7.