The cost of capital in the energy and water sectors in Italy

Workshop “The cost of capital: a cross-country and cross-industry perspective”

Alberto Biancardi - Commissioner of the Italian Regulatory Authority for Electricity Gas and Water

Paris - 12 April 2016
AGENDA

• General framework for tariff setting
• Cost of capital in the energy sector: the reform of the WACC methodology 2016-2021
• Cost of capital in the water sector
AGENDA

• General framework for tariff setting
• Cost of capital in the energy sector: the reform of the WACC methodology 2016-2021
• Cost of capital in the water sector
REGULATORY PROCESS: TARIFF SETTING

Assessment of the state of the industry:
- adequateness of the grid
- needs for future investments

Theory and technique (regulatory schemes):
- cost of service/rate of return
- incentive regulation (price cap, revenue cap)

Data collection → Policy objectives

Choosing the Regulatory scheme → Public consultation → Final Decision
TARIFF SETTING IN THE ENERGY SECTOR

Combined model of price cap (OPEX) and rate of return (CAPEX)

Allowed revenues cover operative costs and capital costs for the service provided through regulated assets.

Regulatory Asset Base (RAB): the assets are evaluated on the basis of a ‘historical revaluated cost’ approach and updated yearly using the Gross Investment Deflator index (GID). The value of assets (net invested capital) is net of the corresponding depreciation fund and net of private and public grants.

Return on RAB is defined as Weighted Average Cost of Capital (WACC) real pre tax

The RAB is updated on a yearly basis taking into account:

- GID variations
- new investments and divestitures
- increase of depreciation fund
- changes in private and public grants

Depreciation is based on regulatory assets useful life (straight-line depreciation)
AGENDA

• General framework for tariff setting
• Cost of capital in the energy sector: the reform of the WACC methodology 2016-2021
• Cost of capital in the water sector
REASONS FOR A REVIEW OF THE WACC METHODOLOGY

- The previous WACC methodology adopted by AEEGSI was first introduced in the second electricity transmission and distribution regulatory period (2004).

- At the time, yields on Italian government bonds were a reasonable proxy for risk-free rates and it was generally assumed that market risk premium and interest rates were non correlated.

- Over the last six years, since the start of the global financial crisis, a number of unusual events have affected capital markets and macroeconomic condition across the globe, including the Eurozone countries.

- AEEGSI found it necessary to review the previous WACC methodology also to avoid that different market conditions at the time of the tariff revision could lead to unjustified differentiations of allowed returns among regulated services.
• Decision 4 December 2014, 597/2014/R/COM (beginning of the proceeding)
• Consultation paper 9 January 2015, 275/2015/R/COM (initial proposals)
• Consultation paper 29 October 2015, 509/2015/R/COM (final proposals)
• Decision 2 December 2015, 583/2015/R/COM (final decision, definition of the WACC for gas sector services)
• Decision 23 December 2015, 654/2015/R/EEL (definition of the WACC for electricity sector services)
Decision 597/2014/R/COM stated the general approach to be followed in the WACC calculation methodology review:

- the allowed rate of return is calculated as a weighted average cost of capital
- the allowed rate of return is calculated as real and pre-tax
- the cost of equity is calculated according to the Capital Asset Pricing Model (CAPM)

Decision 583/2015/R/COM confirmed the general approach indicated in decision 597/2014/R/COM.
WACC FORMULATION

\[
W_{\text{pre-tax, p,s}}^{\text{real}} = K_{\text{e, p,s}}^{\text{real}} \cdot \frac{1 - g_{p,s}}{1 - T_p} + K_{\text{d, p}}^{\text{real}} \cdot g_{p,s} \cdot \frac{1 - t_c}{1 - T_p} + F_{p,s}
\]

\[
\begin{align*}
\text{Gearing (D/(D+E))} & \quad \text{Tax rate} & \quad \text{Tax shield} \\
\text{Cost of debt} & \quad \text{Return on equity} & \quad \text{Tax adjustment factor}
\end{align*}
\]
WACC REGULATORY PERIOD (PWACC)

AEEGSI intended to unify the WACC parameters, except $\beta$ and gearing, for all the regulated activities of electricity and gas sectors.

Unified WACC parameters are set by AEEGSI for a period of time, called WACC regulatory period (PWACC).

The length of the ‘WACC regulatory period’ is six years. The PWACC consists of two sub-periods, each one lasting three years.

In the middle of the PWACC (2018) the following parameters will be reviewed (interim review):

- risk-free rate
- Country Risk Premium
- inflation rate
- fiscal parameters.

Also the gearing relative to different services will be reviewed in 2018.
### WACC REGULATORY PERIOD (PWACC)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PWACC</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Interim review</td>
</tr>
<tr>
<td><strong>Electricity transmission</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Review</td>
</tr>
<tr>
<td><strong>Electricity distribution and metering</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Review</td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Review</td>
</tr>
<tr>
<td><strong>LNG</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Review</td>
</tr>
<tr>
<td><strong>Gas transport</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Review</td>
</tr>
<tr>
<td><strong>Gas distribution and metering</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Review</td>
</tr>
</tbody>
</table>

On the occasion of specific tariff regulation revision, the asset beta is reviewed.
The cost of equity is calculated adding to the traditional CAPM formulation a specific term reflecting the *Country Risk Premium* (CRP):

\[
K_e = RF + \beta \cdot ERP + CRP
\]

where:
- RF is the risk-free rate
- \( \beta \) is a measure of the systematic risk of an activity
- ERP is the equity risk premium

The introduction of parameter CRP allows to explicitly capture the impact of the fiscal crisis on required returns for regulated utilities in Italy.
**POST TAX RETURN ON EQUITY**

\[ K_{p,s}^{real} = \max \left( \frac{RF_p^{nominal} - isr_p}{1 + isr_p}; 0,005 \right) + \beta_{asset} \cdot \left[ 1 + (1 - tc_p) \cdot \frac{g_{p,s}}{1 - g_{p,s}} \right] \cdot ERP_p - CRP_p \]

- **Risk-free rate**
- **Beta levered**
- **Country Risk Premium**

**Equity Risk Premium**

\[ ERP_p = TMR - \max \left( \frac{RF_p^{nominal} - isr_p}{1 + isr_p}; 0,005 \right) \]

where:

- \( isr_p \) is the expected inflation rate.
TOTAL MARKET RETURN (TMR)

In the new approach a greater weight was placed on the concept of total equity market return, to ensure a consistent set of assumptions for the risk-free rate and the equity risk premium, rather than estimating them separately.

TMR was estimated on the basis of long term evidences:
- time horizon: 1900-2014
- countries considered in the calculation: Belgium, France, Germany and Netherlands (rated at least “AA”)
- weighted average of the arithmetic (6.6%) and geometric (3.5%) averages

Range of the weight of arithmetic average

| 50% | 80% |
| doc. 509/2015 |

TMR 5.1%

6.0%
**REAL RISK-FREE RATE**

*Nominal risk-free rate:*
average of nominal ten-year benchmark government bond yields in Eurozone countries with minimum rating “AA” (Belgium, France, Germany and Netherlands) in the period 1 October 2014 – 30 September 2015

![0.79%](0.79%)

*Real risk-free rate* ![0.6%](0.6%)

*Inflation rate:*
average of ten-year inflation linked swap rate in the period 1 October 2014 – 30 September 2015

![1.39%](1.39%)

In order to avoid negative yields, not consistent with economic expectations, AEEGSI introduced a *floor* for the real risk-free rate. On this basis, the real risk-free rate was set equal to 0.5% for years 2016-2018.
AEEGSI adopted a ‘TMR constant’ approach, according to which the ERP is calculated as the difference between TMR and RF.

\[
\begin{align*}
\text{+TMR} & \quad 5.1\% \\
- \text{RF} & \quad 0.5\% \\
\text{= ERP} & \quad 4.6\% \quad \text{(Range doc. 509/2015)} \\
\end{align*}
\]

Final decision

The approach followed for the setting of the risk-free rate and of the equity risk rate allows to reflect “normal” market conditions, before considering the impact of the fiscal crisis in Italy on required returns.
**COUNTRY RISK PREMIUM**

*CRP* reflects the compensation investors require to operate in a certain country.

Rating differentials among countries affect also companies ratings. *CRP* affects both cost of debt and cost of equity.

Two approaches to estimate *CRP* can be followed:

- evidence from **corporate debt markets**
- evidence from **equity markets**

According to initial evaluations *CRP* was estimated to vary between 0,5% and 1,0%.

In the final decision AEEGSI set *CRP* equal to 1,0% for years 2016-2018 for both equity and debt.
COST OF DEBT

From a theoretical point of view, cost of debt can be estimated adding to RF a spread determined on the basis of debt $\beta$. The implementation of this approach, however, presents some practical difficulties.

AEEGSI examined the structure and the stratification of regulated companies’ medium and long term debt.

AEEGSI set the cost of debt in order to reflect the cost of efficiently incurred debt, considering the economic sustainability, giving incentive to define efficient debt portfolios and taking into account evidences from capital markets.

$$Kd_p^{real} = \max \left( \frac{RF_p^{nominal} - isr_p}{1 + isr_p}; 0.005 \right) + CRP_p + DRP$$

- **Risk-free rate**
- **Country Risk Premium**
- **Debt Risk Premium**
FISCAL PARAMETERS

\[ W_{\text{pre-tax},p,s}^{\text{real}} = Ke_{p,s}^{\text{real}} \cdot \frac{(1-g_{p,s})}{(1-T_p)} + Kd_p^{\text{real}} \cdot g_{p,s} \cdot \frac{(1-tc_p)}{(1-T_p)} + F_{p,s} \]

- Gearing (D/(D+E))
- Tax rate
- Tax shield
- Return on equity
- Cost of debt
- Tax adjustment factor
- Cost of debt
- Tax shield
FISCAL PARAMETERS

Fiscal parameters in the WACC formulation allow to take into consideration:

- the effect of the tax rate on the return on equity and on the cost of debt (parameter $T$)
- the effect of tax shield on the cost of debt (parameter $tc$)
- the fact that taxes are paid on nominal returns (tax adjustment factor)
AEEGSI decided to estimate specific $\beta$ for each regulated activity, considering evidences coming from the Eurozone equity markets related to companies with high credit rating, in a period of at least two years.

In AEEGSI’s opinion $\beta$ estimate cannot be considered as a pure mechanistic exercise. It is necessary to analyse the results and evaluate the coherence with the general regulatory framework evolution.

AEEGSI decided to set the *gearing* level taking into account the actual levels for regulated companies and considering the perspective of a gradual alignment towards the average levels adopted by other regulators.
AEEGSI confirmed for the first three years of the **PWACC (2016-2018)** the current levels of gearing for all regulated activities.

<table>
<thead>
<tr>
<th>Activity</th>
<th>D/E</th>
<th>Gearing (D/(D+E))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity transmission</td>
<td>80%</td>
<td>0.444</td>
</tr>
<tr>
<td>Electricity distribution and metering</td>
<td>80%</td>
<td>0.444</td>
</tr>
<tr>
<td>Storage</td>
<td>80%</td>
<td>0.444</td>
</tr>
<tr>
<td>LNG</td>
<td>80%</td>
<td>0.444</td>
</tr>
<tr>
<td>Gas transport</td>
<td>80%</td>
<td>0.444</td>
</tr>
<tr>
<td>Gas distribution</td>
<td>60%</td>
<td>0.375</td>
</tr>
<tr>
<td>Gas metering</td>
<td>60%</td>
<td>0.375</td>
</tr>
</tbody>
</table>
For the second sub-period beginning in year 2019 AEEGSI, in the perspective of a gradual convergence towards the levels adopted by other European regulators, envisaged a revision of gearing level for all regulated activities, with a maximum level of 0.5.

The revision of gearing implies, as a consequence, also a revision of beta levered, on the basis of the following formula:

\[
\beta^{\text{levered}} = \beta^{\text{asset}} \cdot \left( 1 + (1 - tc) \cdot \frac{D}{E} \right)
\]
The asset beta for the calculation of beta levered is reviewed on the occasion of service specific tariff reviews.

<table>
<thead>
<tr>
<th>Service</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity transmission</td>
<td>0.553</td>
<td>0.553</td>
<td>0.553</td>
</tr>
<tr>
<td>Electricity distribution and metering</td>
<td>0.616</td>
<td>0.616</td>
<td>0.616</td>
</tr>
<tr>
<td>Storage</td>
<td>0.800</td>
<td>0.800</td>
<td>0.800</td>
</tr>
<tr>
<td>LNG</td>
<td>0.828</td>
<td>0.828</td>
<td>(*)</td>
</tr>
<tr>
<td>Gas transport</td>
<td>0.575</td>
<td>0.575</td>
<td>(**)</td>
</tr>
<tr>
<td>Gas distribution</td>
<td>0.630</td>
<td>0.630</td>
<td>0.630</td>
</tr>
<tr>
<td>Gas metering</td>
<td>0.720</td>
<td>0.720</td>
<td>0.720</td>
</tr>
</tbody>
</table>

(*) the value will be reviewed on the occasion of the fifth revision of the tariff regulation for the LNG service.

(**) the value will be reviewed on the occasion of the fifth revision of the tariff regulation for the gas transport service.
<table>
<thead>
<tr>
<th>Service</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity transmission</td>
<td>5.3%</td>
<td>5.3%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Electricity distribution and metering</td>
<td>5.6%</td>
<td>5.6%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Storage</td>
<td>6.5%</td>
<td>6.5%</td>
<td>6.5%</td>
</tr>
<tr>
<td>LNG</td>
<td>6.6%</td>
<td>6.6%</td>
<td>(*)</td>
</tr>
<tr>
<td>Gas transport</td>
<td>5.4%</td>
<td>5.4%</td>
<td>(**)</td>
</tr>
<tr>
<td>Gas distribution</td>
<td>6.1%</td>
<td>6.1%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Gas metering</td>
<td>6.6%</td>
<td>6.6%</td>
<td>6.6%</td>
</tr>
</tbody>
</table>

(*) the value will be reviewed on the occasion of the fifth revision of the tariff regulation for the LNG service.
(**) the value will be reviewed on the occasion of the fifth revision of the tariff regulation for the gas transport service.
MID-PERIOD REVIEW

AEEGSI decided to adopt a mid-period review, based on transparent and predictable review mechanisms.

In particular, the parameters that will be reviewed are:

- Risk-free rate (and ERP, as a consequence)
- Country Risk Premium
- Inflation rates ($isr_p$ and $ia_p$)
- Fiscal parameters ($T_p$ and $tc_p$)
In the final decision AEEGSI adopted a trigger approach for the review of the CRP, based on the following formula:

\[ CRP_{II} = CRP_I \cdot \left[ 1 + \left( \frac{\text{Spread}^{\text{corr}}}{\text{Spread}^{\text{base}}} - 1 \right) \cdot SC \right] \]

where:

- \( \text{Spread}^{\text{corr}} \) is the average spread between the Italian ten-year BTP benchmark and the German ten-year Bund in the period 1 October 2017 - 30 September 2018
- \( \text{Spread}^{\text{base}} \) is the average spread between the Italian ten-year BTP benchmark and the German ten-year Bund in the period 1 October 2014 - 30 September 2015
- SC is a dummy variable equal to 0 if the difference between \( \text{Spread}^{\text{corr}} \) and \( \text{Spread}^{\text{base}} \) (in absolute terms) is \( \leq 20\% \) and equal to 1 else
MID-PERIOD REVIEW: OTHER PARAMETERS

Other parameters will be reviewed as follows:

• the risk-free rate will be calculated on the basis of the following formula:

\[
RF_{II}^{real} = \max \left( \frac{RF_{II}^{nominal} - isr_{II}}{1 + isr_{II}} ; 0,005 \right)
\]

where:

\( RF_{II}^{nominal} \) is the average of yields on government bonds issued by Eurozone countries rated at least “AA” in the period 1 October 2017 – 30 September 2018

\( isr_{II} \) is the average of ten-year inflation linked swap rates in the Eurozone in the period 1 October 2017 – 30 September 2018

• the parameter ERP\(_p\) will be recalculated as the difference between the TMR (set equal to 6,0%) and the risk-free rate

• the parameter ia\(_p\) will be defined on the basis of the most recent forecasts of the ECB

• parameters T\(_p\) and tc\(_p\) will be defined on the basis of a detailed analysis in order to estimate taxation levels.
AGENDA

- General framework for tariff setting
- Cost of capital in the energy sector: the reform of the WACC methodology 2016-2021
- Cost of capital in the water sector
Authority approach to water regulation

**Piecemeal activity within a comprehensive strategy**
- Local decision making process
- Empowerment: self determination at decentralized level
- Coherency

**Cost reimbursement rules**
- Constrains on Operating Costs (endogenous vs. exogenous)
- Priority to investments
- Price Cap and Full Cost Recovery

**Pricing to end-users**
- Tariff multiplier
- Reorganise tariff structure applied to consumers

**Rebalancing past disequilibria**
- Past credit billing
- Investigation on above-the-cap proposals

**Measures to avoid default**
- Urgent equalisation

AEEGSI approved tariffs for 1,961 operators regarding 49.8 mn population. The new tariffs had an average yearly increase of 4.04% in 2014 and 4.46% in 2015.
Financial & Fiscal costs (\(OF\) and \(OFisc\)) are calculated on the Net Invested Capital (\(CIN\)), evaluated ex post, according to the “historical cost” principle:

\[
CIN^a = IMN^a + CCN^a + LIC^a - FAcc - FoNI_{non\_inv}
\]

Financial & Fiscal costs are determined according to the following criteria:

- Monetary revaluation of assets
- Standardized financial cost
- Standardized Debt/Equity ratio

**Effects:**

- Ceiling on the bilateral bargaining process between the service provider and the financial institution, to reduce financial costs
- It is not ensured the effective return on investment, rather taking into account a standard ratio between debt and equity (\(CS/CnS=1\))
**Financial Cost for the Period 2016-2019**

- Financial cost is calculated on the basis of the following formula:

\[
OF^a = (K_m + \alpha) \left( 1 - \frac{CIN_{fp}^a}{CIN^a} \right) \times CIN^a
\]

where:

\[
K_m = r_{rm} + \text{WRP} \times \frac{1}{(1 + \frac{CS}{CnS})} + K_{d, \text{real}} \times (1 - t_c) \times \frac{CS/CnS}{(1 + CS/CnS)}
\]

- **Real Risk-free rate** = 0.5%
- **Water Utility Risk Premium** = 1.5%
- **Debt/Equity ratio** = 1
- **Rate of return on debt capital** = 2.8%
- **Tax shield** = 27.5%

\[
\alpha = \beta_{\text{ERP}} \times \frac{1}{(1 + CS/CnS)}
\]

- **Measure of the risk of water sector** = 0.8%
- **Risk premium (that considers water sector specificity)** = 4%
FISCAL COST FOR THE PERIOD 2016-2019

- Fiscal cost is calculated on the basis of the following formula:

\[ OFisc^a = t_c * Rai^a \]

where:

\[ Rai^a = \left\{ \frac{1 + \left( K_m + \alpha + 1 \right) \left( 1 + rpi \right) - 1}{\left( 1 + rpi \right)} \right\} \left( 1 - \frac{CIN_f}{CIN^a} \right) * CIN^a \]

- Tax rate = 34.2%
- Inflation rate = 1.5%
### FINANCIAL & FISCAL PARAMETERS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>MTI-2 2016-2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>$T$</td>
<td>0.342</td>
</tr>
<tr>
<td>$tc$</td>
<td>0.275</td>
</tr>
<tr>
<td>$CS/CnS$</td>
<td>1.000</td>
</tr>
<tr>
<td>$WRP$</td>
<td>0.015</td>
</tr>
<tr>
<td>$rf$</td>
<td>0.005</td>
</tr>
<tr>
<td>$K_d$</td>
<td>0.028</td>
</tr>
<tr>
<td>$Beta$</td>
<td>0.800</td>
</tr>
<tr>
<td>$ERP$</td>
<td>0.040</td>
</tr>
<tr>
<td>$rpi$</td>
<td>0.015</td>
</tr>
</tbody>
</table>

### INPUT DATA

- $T$ e $tc$ = Tax rates
- $CS/CnS$ = Debt/Equity ratio
- $rf$ = real risk free rate
- $WRP$ = Water Utility Risk Premium
- $K_d$ = rate of return on debt capital
- $Beta$ = measure of the risk of water sector
- $ERP$ = risk premium
- $rpi$ = inflation rate

### Key Formulas

- $(k_m + \alpha) + tc(Tasso Rai) = 0.054$
CONCLUSION - Cost of capital: synthesis

<table>
<thead>
<tr>
<th>Energy sector</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity transmission</td>
<td>5.3%</td>
</tr>
<tr>
<td>Electricity distribution and metering</td>
<td>5.6%</td>
</tr>
<tr>
<td>Storage</td>
<td>6.5%</td>
</tr>
<tr>
<td>LNG</td>
<td>6.6%</td>
</tr>
<tr>
<td>Gas transport</td>
<td>5.4%</td>
</tr>
<tr>
<td>Gas distribution</td>
<td>6.1%</td>
</tr>
<tr>
<td>Gas metering</td>
<td>6.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water sector</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate for the recovery of Financial and Fiscal Costs</td>
<td>5.4%</td>
</tr>
</tbody>
</table>
BACK UP
An accurate estimate of the taxation levels was carried out on the occasion of the tariff revision for the electricity sector in 2011. In particular, AEEGSI estimated:

- parameter $T = 35.7\%$ (tax rate)
- parameter $tc = 27.5\%$ (tax shield)

The impact of fiscal reforms after 2011 was examined during the consultation, in order to assess the $T$ level.

In the final decision AEEGSI defined $T = 34.4\%$ and confirmed the level of $tc = 27.5\%$ for years 2016-2018.
In the WACC formulation AEEGSI introduced a tax adjustment factor to reflect the fact that taxes are paid on nominal returns.

The parameter was set equal to 1.5% for years 2016-2018 on the basis of data reported in the ECB Economic Bulletin 7/2015.
Water regulation in Italy: general aspects

- **Water sector:** 60 mln inhabitants, more than 2500 operators (mainly local municipalities and publicly owned/controlled companies)

- **AEEGSI:** independent Authority created in November 1995 (Law 481/95), that regulates electricity, gas and water network services. The Authority formulates its own procedures for the adoption of provisions and enjoys autonomy to lay down the regulations governing its internal organisation, functioning and accounting procedures.

- **AEEGSI independent powers extended to water services** in December 2011 (Law 201/11)

- **First regulatory period (2012 – 2015):** consultation with stakeholders, from transitional to stable tariff methodology (MTI – dec. 643/2013/R/idr)

- **Main regulatory decisions in 2015:**
  - New regulatory period and tariff methodology MTI-2 (dec. 664/2015/R/idr)
  - Regulation of commercial quality (dec. 655/2015/R/idr)
  - Standard management agreement to govern relationships between the contracting authority and the service(s) operator (dec. 656/2015/R/idr)