Regulatory accounting guidelines and reporting requirements

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1. Regulatory accounting and reporting requirements
2. Accounting principles in tariff setting
Regulatory accounting

- Regulatory accounting is a set of principles and rules of presentation of information for regulated companies.
- These rules enable an allocation of companies’ costs, revenues, assets, and liabilities in a way that facilitates control of the regulatory objectives.
- The practical objective of regulatory accounting arrangements is to provide information to assist regulators in dealing with the particular market situation of utilities.
The basic objectives of regulatory accounting

Set regulated tariffs

Monitor performance against the assumptions underlying price controls

Assist in monitoring the financial health of the operator

Detect anticompetitive behaviour (for example, unfair cross-subsidisation and undue discrimination)
Generally accepted accounting principles (GAAP)

• GAAP encompass broad principles and conventions of general application, as well as rules and procedures that determine accepted accounting practices.

• They are used all over the world with some local variations.

• Each country has developed more detailed norms and accounting policies (e.g., Statement of Financial Accounting Standards in the United States and Financial Reporting Standards in the United Kingdom).
Regulatory accounting guidelines

• For clarity and transparency, international best practice recommends that the regulator publish *regulatory accounting guidelines* summarising the regulator’s requirements, motivation, legal background, principles, and processes
• Regulatory accounting guidelines (RAGs) usually include the following sections:
  – purpose of the guidelines,
  – legal basis and authorities,
  – definitions of terms,
  – general principles reflected in preparation of the guidelines,
  – principles for preparing regulatory accounting statements, and
  – information reporting requirements.

Source: WB
Regulators have to define their information needs in terms of the:

| Perimeter of the information | such as the overall coverage of the regulated activities to be reported, separation of information on sub-activities |
| Content of the information   | both financial and non-financial |
| Format of the information   | such as the classification of accounts and appropriate level of disaggregation |
| Periodicity of reporting     | depending on the nature of the information and of the operator’s obligations |

Source: WB
Regulatory accounting statements

✓ are additional to any statutory financial reporting obligations of the companies under the general accounting law;

✓ must be prepared on the basis of GAAP, unless explicitly specified;

✓ are based on the same source of information as statutory accounts statements (regulatory accounting statements should always be reconciled with statutory accounts statements);

✓ will follow regulatory accounting guidelines over accounting standards wherever the two conflict.
Financial statements of the companies normally include three reports

- The *balance sheet* summarises a company’s financial position at a point in time.
- The *income statement* measures a company’s earnings over time, generally between balance sheets.
- The *cash flow* statement complements the income statement and balance sheet and reports the amounts of cash entering and leaving a company.
Why is the Financial Statement useful for regulators?

• It is prepared in accordance with general, by law enacted accounting rules; thus reports of different companies are comparable.
• Is audited by accountants.
• Is not made expressly for the regulator, annual report can be regarded as real and reliable publication.
• Publicly available for everybody who is interested in the financial performance of the company.
• It discloses overall picture on economic performance of the companies.
What are the problems with the Financial Statement?

- Within general accounting rules companies are free to evaluate their assets and liabilities (accounting policies); thus comparability is limited.
- It refers to the whole, usually vertically integrated company, regulated activities are not separated.
- It is prepared and published once a year.
- Regulator’s price regulation policies are not in line with companies’ internal accounting policies (problem of reasonable costs and assets).
Some new problems

• Shared and centralised services within the vertically integrated holding (IT, legal services, accounting etc).
• Content and specification of SLAs (Service Level Agreements).
• Regulatory tasks and competences concerning outsourcings and SLAs.
• Market-based pricing of outsourced services and acceptance by the regulator.
• Tariff increase because of structural changes?
Regulator asks for additional data supplies

- Financial Statement is appropriate for continuous economic monitoring, and – as a starting point – for price regulation as well.
- Regulator usually asks for additional data supplies from the regulated companies.
- Some balance between the necessity to understand of operation of the company and not missing in insurmountable volumes of data.
- Regulator should not manage the regulated company!
Example: Lithuanian NCC requires

Electricity distribution company (distribution licence holder) should submit the following reports:

– Quarterly reports
  • general
  • on quality of service (interruptions, disconnections, etc.)

– Annual reports on
  • general activities
  • connection of new customers
  • connection of renewable generators
  • consumer complaints
Costs in average tariff determination process

1. Inputs: all capital and operational expenditures
2. Separate regulated and unregulated activities
3. Accounting data related to regulated activities
4. Allocate expenditures to regulated sub-activities
5. Capital and operational expenditures related to regulated sub-activities
6. Exclude inefficient costs
7. Determine average tariff

Source: WB
Necessary costs

- Regulator will accept only reasonable and necessary costs in calculation of the Revenue Requirement.
- How to know if certain costs are reasonable and necessary?
- Benchmarking if there are several similar companies (e.g. electricity distribution).
- International benchmarking may give some comparison, but due to different legal background it could also mislead.
**Historic data**

- Historic data is very useful for understanding the costs’ levels as also their development.
- But one should ask if company was managed and operated efficiently.
- When setting tariffs regulator needs to evaluate the future costs, therefore some forecasts should be calculated.
- The forecasts should evaluate the historic trends, current developments and make comparisons with such costs elements of similar companies.
Cost of network losses

• Technical losses – losses associated with the transmission and distribution of electricity
• Non-technical (commercial) losses – losses due to stealing energy and losses due to accidents
• Influencing factors:
  • quantity (or percentage)
  • average price of electricity
Normative values

• Some regulators are trying to give a scientific justification to almost all cost elements – theoretical values are calculated based on complicated formulas and assumptions
• Though it is rather popular, especially in the CIS countries, one should understand that theory may significantly differ from reality
• Therefore, theoretical normative values may be used as benchmarks only
• Price regulation is more art than science ☺
**Regulatory asset base (RAB)**

- RAB usually refers to the measure of the net value of a company’s regulated assets used in price regulation.
- RAB drives two of the fundamental building blocks that make up the company’s revenue requirements:
  - the return on capital (i.e. the return on the RAB) and
  - the depreciation allowance.
- RAB is a key determinant of prices that may be charged for regulated services in the future.
RAB initial value

- RAB is compilation and summation of the assets used in providing the regulated service
  - generally only includes those assets funded with investor money
  - regulators do not generally recognise intangible assets such as goodwill
  - RAB should include the assets used for the provision of the regulated services only
  - excludes customer contributed assets

- RAB is the investment base upon which the provider is permitted to earn a reasonable return
RAB calculation

Opening value + Prudent capital expenditures - Asset disposals or retirements - Regul. accumulated depreciation = Net asset balance
Capital contributions

• Capital contributions comprise of:
  – grants obtained from international institutions and/or the government and
  – direct payments by the user of a specific service for an asset, e.g. connection payments

• The assets financed by the capital contributions should be excluded from the RAB

• Therefore, it is necessary to disclose the values of capital contributions (for existing assets and for new investments) in order to ensure transparency of the process
Regulators should require that

- The net asset value of capital contributions and the relevant accumulated depreciation should be shown separately on the balance sheet for each energy activity;
- Capital contributions should be split into those associated with grants, connection contributions and other capital contributions;
- Where exact splits cannot be identified the regulated companies should provide estimates as well as an explanation of the methodology adopted and why it is considered appropriate.
Working capital

• To the extent that the time at which a particular cost is incurred is not matched with its recovery (via tariff revenues), then capital is required to cover the time lag – working capital

• An investment in working capital is a necessary part of conducting a regulated business

• In addition, there is also place for a return on the working capital similar to the requirement for a return on capital assets
Working capital – regulatory treatment

- There are different approaches for working capital treatment in the regulatory price control
- In general, regulators want to give companies an incentive to manage working capital well
- The USA regulatory practices use cash cycle method called lead-lag approach.
- Some Eastern European (Bulgaria, Romania) regulators allow working capital allowance set equal to 1/8 of the revenue requirements
Construction work in progress (CWIP)

- Most of the regulators think that new capital expenditure should be introduced in the RAB on the basis of actual costs incurred up to the point at which the assets become operational.
- Some regulators include construction work in progress in the RAB when construction is to be completed within a relatively short period of time, e.g. in one year.
- There is also the question of prudent investment when considering whether the full cost of new investment should be added to the RAB.
New investments

- Different type of investments
  - extension investments: all investments needed for meeting the change of load and generation patterns in the future
  - replacement investments: all investments related to replacement of aged (technically or economically) equipment
  - exceptional investments: investment resulting from e.g. new legal obligations.

- Some investments could be both for network extension and for replacement reasons (e.g. replacement of an old transformer with a new one but more powerful)
Ex-post assessment of investments

• Ex-post assessment may be undertaken to supplement the ex-ante investment reviews
• Regulators aim to identify differences between the capital expenditures allowed in the ex-ante review and the actual investments undertaken by the regulated company
• Regulatory ex-post checks can also be undertaken without any previous ex-ante approval of the investments
• In this case, the companies are confronted with the uncertainty of whether the undertaken investments will be recognised by the regulator ex-post.
Used and useful concept

- Regulator needs to consider whether the company’s assets are sufficient to carry the regulated activity
- On the other hand, if a regulated company has excessive number of assets the regulator may decide not to include these assets into the RAB
- Although the assets are being “used” the question is whether they are actually “useful”
Asset valuation options

Asset valuation

Book valuation
- Historic cost
- Indexed historic value

Market valuation
- Current cost
- Modern equivalent asset
- Current
- Re-valued initial

Economic valuation
- Net present value
Historic cost

- The historic cost methodology values assets at their original purchase price
- It has several advantages:
  - it is administratively efficient and can be easily audited because the data should be available from financial statements;
  - it is relatively inexpensive since it does not require experts to determine costs;
  - and it is objective because it relies on actual data rather than judgements
Historic cost - disadvantages

- Historic costs may understate asset prices in times of high inflation and overstate asset prices in times of technological change.
- This method may lead to unstable prices (e.g. prices may rise when new, more expensive assets replace existing assets).
- Data may be inadequate (especially for assets that have been acquired a long time ago) and returns may also be inadequate to support the funding of new investments.
Indexation

• This is the procedure for adjusting the value of the asset base for the effect of inflation

• Indexation should measure movements in the current replacement cost of the assets

• Consumer price index or industrial price index?

• A set of industry-based indices would be more accurate but too complex
Replacement cost

- Calculates the cost of replacing an asset with another asset (not necessarily the same) that will provide the same services and capacity as the existing asset
- The assets are valued based on what it would cost to replace them today
- Replacement costs reflect the price that a firm with a certain service requirement would pay for existing assets in preference to replicating the assets
### Replacement cost advantages and disadvantages

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>• provide an incentive for efficient investment decisions as it allows the regulator to reduce the value of the assets once it becomes aware that a more efficient low cost alternative asset is available</td>
<td>• replacement cost valuations entail a degree of estimation and judgment</td>
</tr>
<tr>
<td>• this reduces the risk of economically inefficient duplication of infrastructure</td>
<td>• the information is more expensive to collect than historic cost data because it may require expert advice</td>
</tr>
</tbody>
</table>
Valuation of assets in the CEE countries

• In many CEE countries assets of the energy companies were not properly valued, historic cost was very low

• Indexations were not sufficient and many countries introduced the replacement cost principle for re-evaluation

• E.g. in Romania asset value of the distribution companies after the re-evaluation increased from 3 to 7 times

• But it was impossible to put it into the revenue requirement
Lessons from the CEE countries

Privatisation of the distribution utilities in Bulgaria, Romania and Macedonia has shown that
– necessary to increase the asset value before the privatisation as it was usually kept too low
– could be too painful to switch to the replacement value of assets
– therefore it is important to agree on the re-valuation of assets before the privatisation and on their further regulatory treatment
– Romania agreed on the market value
### Example: RAB calculation in some CEE countries

<table>
<thead>
<tr>
<th>Country</th>
<th>CWIP included</th>
<th>CC included</th>
<th>Assets value</th>
<th>Revaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>no</td>
<td>yes</td>
<td>historic</td>
<td>yes</td>
</tr>
<tr>
<td>Croatia</td>
<td>yes</td>
<td>no</td>
<td>historic</td>
<td>no</td>
</tr>
<tr>
<td>Estonia</td>
<td>no</td>
<td>no</td>
<td>historic</td>
<td>yes</td>
</tr>
<tr>
<td>Hungary</td>
<td>no</td>
<td>no</td>
<td>replacement</td>
<td>yes</td>
</tr>
<tr>
<td>Lithuania</td>
<td>no</td>
<td>no</td>
<td>replacement</td>
<td>yes</td>
</tr>
<tr>
<td>Serbia</td>
<td>yes</td>
<td>no</td>
<td>historic</td>
<td>yes</td>
</tr>
<tr>
<td>Slovakia</td>
<td>yes</td>
<td>no</td>
<td>replacement</td>
<td>yes</td>
</tr>
</tbody>
</table>
Depreciation is important in tariff setting

• Regulated utilities are capital intensive, and depreciation is a major component of the revenue requirement.

• The approach to calculating depreciation is considerably flexible, and the choice of the depreciation profile can smooth prices and cash flows and reduce risks for the investor.

• Changes in depreciation profiles can result in windfall gains and losses if not handled carefully.
The following principles should guide treatment of depreciation

• A simple, easily implemented approach to calculating depreciation, such as the use of straight depreciation, is to be preferred.

• Such an approach is unlikely to coincide with economic depreciation, but no single approach is necessarily more likely than another to reflect the economic depreciation of individual assets.

• Applying a uniform approach (but not uniform asset life) to all assets is clearest, simplest, and most easily verified, and it avoids the need to monitor the demarcation between asset classes.

• Maintaining a consistent approach to and assumptions about depreciation over time helps to avoid uncertainty and windfall gains or unexpected losses.

Source: WB
Further reading


THANK YOU
FOR YOUR ATTENTION!

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