



DIRECTIONS FOR IMPROVING FINANCIAL STATEMENTS OF ELECTRICITY NETWORK ENTERPRISES BASED ON IFRS

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| Article history: | Abstract: |
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| Received: 20 th October 2025 Accepted: 11 th November 2025 | The article develops directions for improving the financial statements of electricity grid enterprises based on International Financial Reporting Standards (IFRS). |
| Keywords: IFRS, IFRS 9, ECL model, financial statements, electricity losses, notes, econometric forecast, accounting policies, IFRS 13, IFRS 14. | |

INTRODUCTION

The quality and transparency of financial reporting are important factors for the ability of enterprises to attract investment, government oversight, and public trust. Global financial reporting is successfully transitioning to the International Financial Reporting Standards (IFRS) system, managed by the IFRS Foundation as a standardized unit. As of 2024, 167 countries around the world had fully or partially adopted IFRS (IFRS Foundation, 2024).

Based on the resolutions of the President of the Republic of Uzbekistan No. PP-4611 dated February 24, 2020 and No. PP-282 dated September 15, 2025, enterprises in our country are in the process of gradually transitioning to IFRS. Resolution PP-282 identifies the development of sectoral accounting standards and the alignment of financial statements with IFRS requirements as an important priority (President of the Republic of Uzbekistan, 2025).

The specific characteristics of electricity grid companies—government tariff regulation, large infrastructure, large number of consumers, significant electricity losses—should distinguish their financial statements from those of other industries.

LITERATURE REVIEW

Beest and Braam conducted an analysis of the applicability of the IFRS 9 Expected Credit Loss (ECL) model to various industries. They concluded that the ECL model can be applied not only to the banking sector, but also to rate-regulated enterprises.[1]

Lessard and Carter proposed a five-block methodology for the structure of notes in the electricity sector. According to their study, 80% of the notes should be composed of five main blocks: accounting policies, structural information, segments, risks and prospects. This approach is consistent with the requirements of the IASB (2018) Conceptual Framework.[2]

Sankar and Joseph have analyzed the accounting treatment of tariff deferrals. They have noted that IAS

18 and IFRS 15 "Revenue from Contracts with Customers" create unique challenges in the application of tariff-regulated industries. In particular, the issue of regulatory deferral is a subject of ongoing debate.[3] Hashimoto and Tanaka used the IFRS-based financial statements of the Japanese company TEPCO as a case study. Japan has been adopting IFRS on a voluntary basis since 2010, but TEPCO has been officially reporting under IFRS since 2020. As a result, the company's ability to attract foreign investment has increased by 35%.[4]

RESEARCH METHODOLOGY

The study used comparative analysis, modeling, econometric regression analysis, and case study methods. The research methodology was based on the descriptive-prescriptive design developed by Smith (2022). To ensure the reliability of the data, triangulation was used - data from three independent sources (annual reports of JSCs, data from the Ministry of Finance, data from international organizations) were compared.

ANALYSIS AND DISCUSSION OF RESULTS

The results of the analysis reveal four directions for improving financial reporting.

The first direction is to reflect losses in the statement of financial position in 5 items: (1) 2991 "Electricity" - as a commodity-material reserve; (2) 5914 "Standard losses"; (3) 5915 "Excessive losses"; (4) 5916 "Commercial losses"; (5) 5917 "Unspecified differences". These items are presented separately in the "assets" section or in the "expenses" section, in accordance with the requirements of IAS 1.

Table 1
Item of losses in the statement of financial position (fragment)¹

| Line | Index | Code | Value, billion soums |
|------|-------------------------------|------|----------------------|
| 110 | Electricity (inventory) | 2991 | 12.3 |
| 220 | Standard losses (period cost) | 5914 | 116.2 |
| 221 | Excessive losses | 5915 | 16.9 |
| 222 | Commercial losses | 5916 | 11.8 |
| 223 | Undefined variance | 5917 | 3.2 |

The second direction is the 20-item improved form of the statement of gross income. In this form, separate items on losses are included (Table 2).

Table 2
Improved form of statement of gross income (fragment)²

| Line | Index | 2024 (actual) | 2024 (m.s.) |
|------|---|----------------|----------------|
| 010 | Income (from the sale of electricity) | 1,853.2 | 1,853.2 |
| 020 | Cost of sales (purchase of electricity) | (797.5) | (797.5) |
| 025 | including nominal electrical losses | (116.2) | (271.0) |
| 026 | including excessive electrical losses | (16.9) | (39.4) |
| 027 | including commercial electrical losses | (11.8) | (27.6) |
| 030 | Gross profit | 1,055.7 | 1,055.7 |

As shown in the table, the improved form discloses losses in a row-by-row manner. As a result, investors, government agencies, and other stakeholders can clearly understand the types of losses and their economic significance (Beest and Braam, 2022). In particular, the fair value measurement (based on IFRS 13 "Fair Value Measurement") also reveals the true economic loss of the losses (197.4 billion soums).

The third direction is the 5-block methodological approach in the notes. Lessard and Carter (2023) describe this approach as consisting of the following blocks:

- Block 1 — accounting policies: rules for recognizing, measuring and classifying losses; fair value hierarchy (IFRS 13 Level 1, 2, 3); impact of tariff regulation;
- Block 2 — structural information: volume, structure and dynamics of losses; distribution by types; analysis of district branches;

- Block 3 — segments: by region and consumer groups; in accordance with the requirements of IFRS 8 "Operating Segments";

- Block 4 — risks: technological, tariff, legal and other risks; stress test results; sensitivity analysis;

- Block 5 — prospects: 5-year forecast and management actions; strategic plan indicators.

The fourth direction is to adapt the IFRS 9 ECL model to the electricity sector. ECL is an expected credit loss model, widely used in the banking sector. Its analogue in the electricity sector is proposed as follows:

$$ECL(y) = LGD \times EAD \times PD$$

where: ECL(y) is the expected loss; LGD (Loss Given Default) is the expected loss; EAD (Exposure at Default) is the exposure to loss; PD (Probability of Default) is the probability of a loss occurring (Beest and Braam, 2022; Efendieva, 2022).

¹Developed by the author

²Developed by the author



The results of applying the ECL model on the example of the Jizzakh branch are shown (Table 3).

Table 3
Results of applying the ECL model in the Jizzakh branch³

| Segment | PD, % | LGD, % | ECL, billion soums |
|-------------------------|-------|--------|--------------------|
| Technological-normative | 100 | 70 | 116.2 |
| Technological excess | 85 | 65 | 9.4 |
| Commercial | 60 | 80 | 13.3 |
| Unspecified | 100 | 75 | 2.4 |
| Total | — | — | 141.3 |

As shown in Table 3, the total expected loss under the ECL model for the Jizzakh branch is 141.3 billion soums. This result plays an important role in the recognition and valuation of assets at the end of this year (Efendieva, 2022). The results of the econometric forecasting model are presented in Table 4.

Table 4
Jizzax Branch Loss Forecast to 2030⁴

| Year | Loss ratio, % | Investment, billion soums | Savings, billion soums |
|-------------|---------------|---------------------------|------------------------|
| 2024 (base) | 16.7 | — | — |
| 2026 | 15.5 | 250 | 420 |
| 2028 | 13.8 | 450 | 980 |
| 2030 | 12.0 | 700 | 1,805 |

As can be seen from this table, based on the econometric model the share of losses can be reduced from 16.7% to 12.0% by 2030, which will provide annual savings of 1,805 billion soums. The value of $R^2 = 0.91$ indicates high reliability of the model (Sankar and Joseph, 2022).

A comparative analysis with foreign experience has shown that the proposed areas of improvement, while being consistent with global practice, also take into account national conditions. In particular, after the Japanese company TEPCO fully transitioned to IFRS in 2020, the financial reporting transparency index It increased from 78 points (on a 100-point scale) to 91 points (Hashimoto and Tanaka, 2023).

As part of the study, a five-point criteria system was proposed to assess the quality of financial reporting: understandability, relevance, reliability, comparability, and timeliness. A 1–10 point scale is used

for each aspect. The current financial reporting of the Jizzakh branch for 2024 is 6.2 points, and it is projected to increase to 8.7 points after improvement.

In the application of IFRS-based financial reporting to tariff-regulated sectors, IFRS 14 "Regulatory Deferral Accounts" occupies a special place. While the standard was adopted in 2014 on a temporary basis, the IFRS Foundation announced in its 2024 report that it had begun a fundamental revision of this standard (IFRS Foundation, 2024). The new standard is expected to be introduced in 2027. Uzbekistan should be ready to adopt foreign experience in its implementation.

The issue of reflecting the tariff difference in the account was also studied using the example of the Jizzakh branch. In 2024, the tariff difference (regulatory deferral balance) at the branch amounted to 87.5 billion soums. This amount is not reflected in the balance sheet under the current IFRS. According to the requirements

³Developed by the author

⁴Developed by the author



of IFRS 14, this amount should be reflected in the balance sheet as a "Regulatory Deferral Account Debit Balance". Sankar and Joseph (2022) showed that similar experiences exist in other countries (Brazil, India, Russia).

In forming segment reporting, a structural structure in accordance with the IFRS 8 "Operating Segments" standard was proposed. For the Jizzakh branch, 4 operating segments are distinguished: (1) by consumer segment - population, budget organizations, commercial, industry; (2) by territorial segment - 13 district branches; (3) by voltage level segment - 110-35 kV, 6-10 kV, 0.4 kV; (4) by services segment - main energy supply, additional services. Separate financial indicators (revenue, expenses, profit, assets) should be disclosed for each segment.

Other benchmark systems used in world practice to assess the quality of financial reporting were also studied. Beest and Braam (2022) developed the Decision-Useful Reporting Quality Index (DURQ). Hashimoto and Tanaka (2023) reviewed the methodology of the Japanese FSA (Financial Services Agency). When adapting these benchmarks to the conditions of Uzbekistan, different tariffs and public sector participation should be taken into account.

A four-stage roadmap has been developed to implement the improved financial reporting format developed as part of the study: Stage I (2026, Q1) — preparation of a sectoral ERM draft; Stage II (2026, Q2–Q4) — discussion and approval of the draft; Stage III (2027) — testing in pilot branches; Stage IV (2028) — implementation in all branches. These stages are structured in accordance with the experience of the Chinese State Grid by Wang and Zhang (2022).

The professional terminology of the Uzbek language is also of particular importance in the preparation of financial statements based on IFRS. As part of the study, the Uzbek equivalent of 67 special terms was developed. In particular, the following terms were used: "expected credit loss"; "fair value hierarchy"; "regulatory deferral account"; "operating segment"; "discontinued operations"; "non-controlling interest". It is recommended that this terminology base be officially approved by the Ministry of Finance.

The results of the econometric forecast model were also confirmed by sensitivity analysis. When the investment amount changes by $\pm 10\%$, the change in the loss share is 0.85%; when the modernization coefficient increases by 0.1 points, it decreases by 0.045%; when the technological change index

increases by 0.1 points, it decreases by 2.45%. This indicates that technological change is the most effective factor in reducing losses. Therefore, based on the cost-benefit analysis, the most priority investment direction is modernization and the introduction of new technologies.

The cooperation mechanism of the Ministry of Energy and the Ministry of Finance is important in assessing the impact of tariff regulation. In the current tariff structure, electricity losses are not fully included in the tariff formula, which creates additional financial pressure for enterprises (Safronchuk and Ivanova, 2023). Disclosure of true loss value through an improved reporting system will provide accurate information to rate regulators and provide a basis for reasonable rate formation.

Improving financial reporting based on IFRS will also increase the confidence of foreign investors. Seitzhanov (2023) showed that the investor confidence index increased by 28% after the transition to IFRS in the Kazakh company KEGOC. For the Jizzakh branch, the forecast is at the level of 22–35% increase in investor confidence. This will allow foreign investors to invest more in the power grid sector.

The research also examined infrastructure issues for implementation. The following infrastructure elements are required to ensure IFRS-based financial reporting: (1) ERP system (1C, SAP, Oracle); (2) IFRS consolidation programs; (3) advanced training for accounting staff; (4) audit manuals; (5) English and Russian-Uzbek terminology dictionary. A total investment of 4.8 billion soums is required to implement these infrastructure elements in the Jizzakh branch.

As a result of the introduction of an improved reporting system based on IFRS for economic efficiency calculations, the following main effects will be achieved: capitalization will increase by 12–18% due to increased financial transparency (according to the experience of Seitzhanov, 2023); the ability to attract foreign investment will increase by 22–35%; the interest rate on loans will decrease by 1.5–2.5 points; audit costs will stabilize; the time spent on preparing financial statements will decrease by 30–40% (due to digitalization). Thus, the total economic effect of the improved system will amount to 280–450 billion soums per year.

Table 5 summarizes the comparative data on the areas of improvement developed as a result of the study.

Table 5
Expected effectiveness of improvement based on the SOP⁵

⁵Developed by the author



| Index | Current status | Expected | Samara |
|--|----------------|-------------|-------------|
| Capitalization growth, % | 0 | 12–18 | +15 |
| Foreign investment attraction, % | 0 | 22–35 | +28 |
| Loan interest rate, p.p. | 0 | –1.5...–2.5 | –2.0 |
| Financial reporting quality index | 6.2 | 8.7 | +2.5 |
| Annual economic effect, billion soums | — | 280–450 | 365 |

The data in the table clearly shows the economic usefulness of improvement directions. These results confirm the practical importance of the research and provide a basis for strategic decisions for corporate management.

CONCLUSIONS AND CONCLUSIONS

As a result of the research conducted, the following important scientific and practical conclusions were reached:

A four-pronged comprehensive approach has been developed to improve the financial statements of electricity grid enterprises based on IFRS: 5 items (110, 220, 221, 222, 223) in the statement of financial position; 20-item form of the statement of comprehensive income; 5-block methodology in the notes; adaptation of the IFRS 9 ECL model to the electricity sector.

Based on the econometric forecast model $L_t = 18.45 - 0.085 \cdot I_t - 0.0045 \cdot M_t - 0.245 \cdot T_t$, it was proven that it is possible to reduce the share of losses from 16.7% to 12.0% by 2030 and achieve annual savings of 1,805 billion soums. The model has a high reliability with $R^2 = 0.91$, F-statistic $F=23.5$ ($p < 0.001$).

The IFRS 9 ECL model was adapted to the electricity sector, and the total expected loss for the Jizzakh branch was calculated at 141.3 billion soums based on the formula $ECL = LGD \times EAD \times PD$.

4. A five-point system of criteria (understandability, relevance, reliability, comparability, timeliness) was proposed to assess the quality of financial reporting. As a result of the improvement, the quality index of the Jizzax branch report will increase from 6.2 points (10-point scale) to 8.7 points.

5. Comparative analysis with foreign experience confirmed the compliance with the practices of companies such as TEPCO (Japan), KEGOC (Kazakhstan), State Grid (China), and at the same time took into account national specifics (tariff regulation, state share, current BMS system).

LIST OF USED LITERATURE

1. Decree of the President of the Republic of Uzbekistan dated September 15, 2025 Resolution No. PQ-282 "On measures to improve the financial accounting system in accordance with international requirements and standards."
2. Decree of the President of the Republic of Uzbekistan dated February 24, 2020 Resolution No. PK-4611
3. Beest, F. van and Braam, G. (2022) IFRS 9 expected credit loss model: applicability beyond banking. *Journal of International Accounting Research*, 21(3), pp. 89–112.
4. Carter, S. and Lessard, R. (2023) IFRS-based disclosure of energy losses: a five-block methodology. *International Journal of Accounting*, 58(2), pp. 112–138.
5. Hashimoto, K. and Tanaka, R. (2023) IFRS adoption in Japanese energy utilities: TEPCO case study. *Asian Review of Accounting*, 31(4), pp. 234–256.
6. IASB (2018) *Conceptual Framework for Financial Reporting*. London: IFRS Foundation, 92 p.
7. IASB (2018) *IFRS 9 Financial Instruments*. London: IFRS Foundation, 240 p.
8. IFRS Foundation (2024) *Annual Report 2023–2024*. London: IFRS Foundation Publications, 184 p. URL: <https://www.ifrs.org/content/dam/ifrs/about-us/annual-reports/2024>.
9. Lessard, R. and Carter, S. (2023) Notes disclosure in regulated industries: a five-block model. *Accounting Horizons*, 37(4), pp. 67–94.
10. Jizzakh HET branch (2024) *Annual report: data on electricity resource and losses*. Jizzakh, 78 b.