



## COMPARATIVE ANALYSIS OF ELECTRIC POWER INDUSTRY TERMINOLOGY

**Galiakberova Albina Rinatovna<sup>1</sup>**

<sup>1</sup>A senior teacher of "Teaching languages" department, "Management in production" faculty, Ferghana Polytechnic Institute, Uzbekistan, Ferghana

### ABSTRACT

The article deals with the problem of abbreviation in the terminology of electric power industry. In this field, various abbreviations are widely used in technical documentation and used in professional communication. The aim of the work is to analyze the peculiarities, methods of education and translation of abbreviations in the investigated terminological field. Quantitative and semantic methods of analysis were used in the study. A sample of English and Russian abbreviations was made from dictionaries, standards, issues of trade journal and technical documentation, by the example of which their regularities and complexity of use were generalized. The results of the research showed that in the field of electric power engineering the initial method of formation of abbreviations is the most frequent.

**KEY WORDS:** electric power industry, terms, research, abbreviations, technical, dictionary, feature, method, translation, semantic, documentation, glossary equipment.

### DISCUSSION

Electric power industry is the most important industry in Uzbekistan, the welfare of the country depends on its level of development. It is engaged in the production and transmission of electricity, the need for which is constantly growing both in industrial and social spheres. Due to the development of science and technology, the energy industry has to face new challenges, such as the development of unconventional energy sources, increasing reliability of energy systems, increasing the volume of data from different measurements, etc. At present, international cooperation in the field of science and economics continues to be strengthened, which requires accelerating the harmonization of the terminology of national languages.

At the same time, it is necessary to expand the boundaries of the existing terminology system in order to add new concepts, terms and definitions to its composition. At the same time, it is necessary to take into account that these new concepts, terms and definitions should be unified for all energy systems to exclude their ambiguous interpretation by specialists of different energy sectors.

In today's world, acronyms are found in various areas of life. Recent scientific works show that they are present not only in specialized fields of knowledge, but also in everyday communication [3]. As stated in the article by I.A. Ulitkin and L.L. Nelyubin, "a feature of modern scientific technical language is a large number of acronyms" [5]. This statement is especially relevant for the current study, as the area of research is the terminology of electric power industry, i.e. specialized technical sphere.

Many linguists, including the already mentioned I.A. Ulitkin and L.L. Nelyubin, connect abbreviations, encountered in the study, with the tendency to save "oral and written text" [5]. Abbreviations are used in national and international standards and are registered by them. The abbreviations can be non-standardized and used in scientific and technical literature and any normative documents. The abbreviations may also be related to economic concepts and technologies applied in the field of electric power.

The purpose of the current research is not to differentiate abbreviations by the principle of their strict or non-strict regulation, but to study their



features, methods of education and translation, as well as to compare the use of acronyms in the electric power industry in English, Uzbek and Russian. The tasks of the paper include consideration of the types of abbreviations typical for the terminology under study, bringing their percentage ratio, studying the problem of abbreviations homonymy. The practical significance of the study is that it is based on a glossary of abbreviations, which will be useful in the work of not only translators, but also a wide range of specialists.

In the technical documentation of the target industry, the process of abbreviation is subject to a large number of terms referring to equipment (AVR - automatic voltage regulator, Russian equivalent of АРН - автоматический регулятор напряжения, Uzbek equivalent of AKR - avtomatik kuchlanish regulyatori), processes (CA - contingency analysis - анализ непредвиденных обстоятельств - favqulodda vaziyatlarni tahlil qilish, LF - load forecast, Russian equivalent of ПНП - прогнозирование нагрузки потребления, Uzbek equivalent of IYBQ - iste'mol yukini bashorat qilish, various values (ATC - available transfer capacity - располагаемая мощность - mavjud quvvat, TTC - transfer capacity - передаваемая мощность - uzatiladigan quvvat, LV - low voltage, Russian equivalent of НН - низкое напряжение, Uzbek equivalent of РК - past kuchlanish), etc. The names of technologies used in the energy sector (SCADA - Supervisory Control and Data Acquisition) are also shortened.

Graphic abbreviations are abbreviations in which the cut off part of a word is indicated by some graphic symbol. This method of abbreviation is used in units of measurement in both languages. For example, the English language uses a slash line and a dot (watt per steradian - W/sr, watt per steradian, revolution per minute - r/min, rpm, Newton meter - N-m), degree symbol (degree Fahrenheit- eF) and numeric designations (cubic meter - mi, square inch - in), and the simultaneous use of a slash line and a number (candela per square foot - cd/ftl) is possible.

B. V. Borisov highlights the following types of truncation [1]:

- truncation of the end part of the word;
- truncation of the initial part of the word;
- truncation of the initial and the end part of the word.

In our sample, truncation abbreviations are presented in small numbers. For example, in English: antilogarithm - antilog, logarithm - log, diameter - diam, circular mil - cmil, avg - average; in Russian: ГеоЭС - геотермальная электростанция, in Uzbek - geotermal elektr stantsiyasi. B. V. Borisov

notes that the last type of truncation of the initial and end parts of the word is very rare in English [1]. We also failed to find such a type in the terminology of the electric power industry.

A. Yeltsov divides abbreviations into "initial abbreviations represented only by the initials of words included in the original abbreviated word combination and non-initial abbreviations of any syllabic and mixed types" [2]. Therefore, we consider it expedient to bring the percentage ratio of graphic abbreviations and truncation in the aggregate, because in our selection they are the smallest percentage. So, from total number of all selected abbreviations the given type is presented 10,5 % in English and 1,5 % in Russian and Uzbek languages accordingly.

These results allow us to speak about the greatest distribution of initial abbreviations. They are the ones that can cause difficulties in translation of special literature from one language to another. One and the same abbreviation may have several interpretations in different fields of knowledge. Additional complexity may arise if abbreviations are homonymous within the same subject terminology.

Let us consider several such abbreviations - homonyms in detail. The site <https://www.acronymfinder.com> gives us 72 values of the abbreviation LF, three of which are applicable to the field of electric power industry: LF - low frequency / низкая частота / past chastotali, load factor / фактор нагрузки / yuk koeffitsienti, load forecast - прогноз нагрузки / yuk prognozi. For the abbreviation EMF site offers 57 definitions, two of which are used in the electrical power industry: electromagnetic field / электромагнитное поле / elektromagnit maydon and electromotive force / электродвижущая сила / elektromotor kuch. Another common abbreviation EC, according to this site, has 192 values. In the electric power industry, this abbreviation can be used in 8 values, according to the dictionary. N. Putinsky: electrical conductivity / электропроводность / elektr o'tkazuvchanligi, Electricity Council (UK) / Совет по электроэнергетике (Великобритания) / Elektr Kengashi (Buyuk Britaniya), electrocoating / электропокрытие / elektr qoplamasi, emergency conditions / аварийный режим / favqulodda holat rejimi, emergency control / противоаварийное управление / favqulodda vaziyatlarni boshqarish. Therefore, in the translation process it is necessary not only to take into account the subject matter, but also to understand the context in which the abbreviation is used.

When using or translating abbreviations, even small details matter. For example, ac - alternating current / переменный ток /



o'zgaruvchan tok, dc - direct current / ПОСТОЯННЫЙ ТОК / o'zgarimas tok. These abbreviations are sometimes used with the point - a.c. and d.c. respectively. If you follow the general trend and denote the abbreviation with capital letters AC and DC, the meaning of the terminating word combination changes. The International Electrotechnical Dictionary defines: "AC (qualifier): refers to variable electrical quantities, such as voltage or current, to devices operating with them, or to quantities associated with these devices. Notes: 1) The English designation "AC" is preferred to "a.c.", which is the abbreviation for "alternating current" [3]. Or in the dictionary of Ya.N.Luginsky's dictionary abbreviation AC means with capital letters: 1. Accuracy check / КОНТРОЛЬ ТОЧНОСТИ / aniq nazorat; 2. Automatic checkout / АВТОМАТИЧЕСКИЙ КОНТРОЛЬ / avtomatik boshqarish. In Russian it is not customary to abbreviate the concepts of alternating current/ переменный ток / o'zgaruvchan tok and direct current/ ПОСТОЯННЫЙ ТОК// o'zgarimas tok at all.

In abbreviations, i.e. those that contain a person's name, the first letter is the capital. This is mainly characteristic of units: W - watt / Вт - Ватт, J - joule / Дж - Джоуль, A - ampere/ А - Ампер, Hz - Hertz / Гц - Герц.

If you compare the initial abbreviations of the Russian and English languages, you will notice the mismatched number of letters in some abbreviations. For example, kW / kilowatt - кВт / киловатт - kW / kilowatt, SCI / SCT / short circuit / КЗ / короткое замыкание / QT / qisqa tutashuv, i.e. the number of words to be abbreviated in a word combination is the same, and in the formed abbreviation the number of letters is different. If the abbreviation SCI / SCT shortens the letter I/T, another SC nation is formed - static compensator / СТАТИЧЕСКИЙ КОМПЕНСАТОР / statik kompensator. If you eliminate the letter "t", you get kV - kilovolt. Thus, an attempt is made to exclude the possibility of incorrect interpretation of the abbreviation or its homonymy in the language.

## CONCLUSION

So, based on the analysis of the selected abbreviations we can note some regularities of the formation and use of acronyms.

1. The most common are initial abbreviations - most abbreviations of technical terms are denoted by capital letters. This is typical for both English and Russian. In the studied sample, the initial abbreviations are 89.5% in English and 98.5% in Russian and Uzbek. However, there are significant exceptions to this rule when lower case letters are

used, but the percentage of such abbreviations is low, although they denote frequency concepts. At the same time, there are cases when the abbreviation is formed in both capital and lowercase letters, and the meaning of the terminating combination does not change.

2. Some abbreviations are characterized by a homonymy, and abbreviations may have several meanings within the same area of use - in our case electric power industry.

3. In abbreviations containing a person's name, the first letter of that person's name will always be capital.

The method of translation of the full term underlying the abbreviation is predominant in the field of electric power industry. However, the names of technologies or systems may be fully capitalized in Latin letters or transcribed. The results of this study reflect current trends and approaches to the problem of abbreviations in the field of electric power terminology.

## REFERENCES

1. Borisov V.V. (1995) *Abbreviation and acronym: military and scientific-technical abbreviations in foreign languages*. Moscow: Military Publishing House. P.320.
2. Eltsov K. A. (2005) *Strategy for the translation of abbreviations*. Moscow. P.22.
3. Maksimenko O. I. (2017) *New abbreviation trends (based on Russian, English and German languages) // Bulletin of the Peoples' Friendship University of Russia. Series: Language Theory. Semiotics. Semantics. V. 8. No. 1. P.p. 174-181.*
4. Nelyubin L. L. (2016) *Introduction to the technique of translation (cognitive theoretical and pragmatic aspect)*. 5th ed. Moscow: FLINT. P.216.
5. Ulitkin I. A., Nelyubin L. L. (2014) *Use and translation of abbreviations in a scientific and technical text // Human Science: Humanitarian Studies.No. 4 (18). P.p. 58-69.*