HOW A GAP IN THE BRAZILIAN REGULATORY FRAMEWORK CREATED AN OPPORTUNITY FOR MICRO AND MINI RENEWABLE DISTRIBUTED GENERATION IN BRAZIL

Rodrigo Brandão Fontoura, IEE-USP, 55 11 96617-8181, rbfontoura@yahoo.com.br
Virginia Parente, IEE-USP, 55 11 99972-8711, vparente@iee.usp.br

Overview

Small-scale renewable distributed generation has proved to be an important resource as an alternative to the traditional way to produce electricity. It represents not only a sustainable and efficient form of diversifying the electricity mix, but also a real means of boosting the economy. In Brazil, the legislation regulating renewable micro and mini distributed generation has undergone several public consultations and changes, which demonstrates an effort by the regulator to find a better fit to the market reality. It can be verified, however, that despite government efforts to make this adjustment, there are still some controversial points in present regulation, especially with respect to the Electric Energy Compensation System (EECS). EECS is the mechanism created to allow the energy surplus generated by the prosumer available to the electricity grid and, later, compensated by the electricity consumption of that same prosumer unit. In this sense, one of the most controversial points regarding the new proposed regulation concerns to the fact that the unit which generates energy is the only unit allowed to compensate it, called "compensatory legitimacy". From this point of view, if interpreted literally, this obligation would harm all end users who do not have the logistic or financial conditions to invest in a distributed generation plant. The legislation did not, however, predict that the market itself, would find a way to legitimize end users. This paper aims to demonstrate how this regulatory gap regarding micro and mini distributed renewable generation in Brazil provided a market opportunity for end users, deprived of logistical and monetary resources to bypass the regulatory framework and join the Electric Energy Compensation System by granting generation ownership to third-party generators.

Methods

This research is based on the investigation of the Brazilian current regulatory framework on small-scale renewable distributed generation projects as well as some practical examples of how such projects have been implemented.

Results

It was observed that the gap left by the current Brazilian regulation was actually used by market agents to legitimize end-users without generation resources using small-scale renewable distributed generation and the EECS clearing mechanism. This possibility occurred through the transfer of ownership of energy generation by the means of specific contracts such as the lease of the generating plant.

Conclusions

The existing regulatory gap allowed market agents not only to legitimize energy compensation by end-users, but also to enable investments by third-party generators. At the end, it was created the conditions for the small scale distributed generators to make a more significant contribution to the power supply in Brazil.

References

ANEEL - Agência Nacional de Energia Elétrica. – Brasília: Micro e minigeração distribuída: sistema de compensação de energia elétrica – Brasília, 2014. 28 p. il. - Cadernos temáticos.

ANEEL - Agência Nacional de Energia Elétrica. Resoluções Normativas 390/2009, 414/2010, 482/2012 e 687/2015.