

SUSTAINABLE INDICATORS FOR ELECTRICITY INDUSTRY IN THE NORTH OF MEXICO

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Overview

The electricity industry is one of the most important strategic sectors of Mexican State, is currently engaged in the process of regional integration between Mexico and U.S., the participation of independent power producers have induced changes in its midst, in their interrelationships with other sectors and their performance in the development of Mexico. After nearly 15 years of this operation. An evaluation is needed for this process of transformation undergone by this valuarte of Mexican history. For its assessment proposes a methodology for measuring the sustainability of the electricity industry by region, on the basis of vision to integrate the economic, social and environmental development. After a time-frame of the previous model have been suffering profound changes in the landscape of the structuring of society where the conditions that justified the principles of operation of the electricity industry have changed substantially and that this situation provides the challenges of exploration of new directions It might be interesting not fail to note the slope framed by the new reforms electricity. Firstly, on the border these changes seem to take the lead and any conjecture validated in this region can help to discern signs of validity. Second, the criterion of sustainability and recovered in the recent reforms and public policies we provide a backbone for criticism evaluatoria instrumental and a proposal which could usefully apply scientific and technological advances.

Methods

The concept of development tridimensioneal for analysis considers the social, economic and environmental. For each of these three indicators that are built into the overall analysis gives us an overview of the balance of sustainability of the electricity industry between each of them and guide us towards guidelines leading energy policy. The indicators for each of them: Social dimension: human development index (HDI), electric coverage (EC) and electric power consumption per capita (EC/capita). Dimension economic: Electrical autarky, electrical ruggedness and electrical productivity. Environmental dimension: Use of renewable energy in power generation, levels of Emissions of carbon dioxide and nitrogen oxides for electricity generation.

Results

The northern border has features in common low levels of the environmental dimension of sustainability, but the social dimension is of greater sustainability. The economy is showing substantial differences in each of the Federal Entities. Baja California is the highest integration, Tamaulipas have great participation from external producers for sales to the Federal Electricity Commission. Sonora is the lesser of progress in integration. Chihuahua, Coahuila and Nuevo Leon has a moderately sustainable in economic terms.

Conclusions

The formula of three-dimensional assessment of sustainable development, is the new approach of development assessment, can evaluate different levels of territoriality, aggregation, sectoral or systems. In our case, we were able to apply to the electricity sector in Mexico's northern border and observe the changes brought about by the integration process within the framework of NAFTA and electrical reforms undertaken in 1992. The northern border of Mexico is no longer a homogenous region, has important differences in the extent of their regional integration. The Mexican electricity industry is already part of the integration process which lives in this whole area. This must be taken into account in the definition of energy policies conducive to sustainable energy development in Mexico and the northern border in what specific.

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