***ENERGY TRANSITION IN CITIES: HOW TO MEASURE, TRACK, AND EVALUATE***

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**Overview**

With the increase in global concerns about climate change and the urgent need to reduce greenhouse gas emissions, the theme of transitioning cities to a more sustainable profile has become more relevant than ever. Amid the growing environmental challenges, the search for sustainable and resilient solutions in the urban context has become an undeniable priority. Therefore, promoting, developing, and preparing cities towards net zero has become a fundamental need to mitigate the impacts of climate change and also an opportunity to boost inclusive, innovative, and sustainable urban development within those cities.

There are approximately 1,000 cities around the world that have already announced targets to achieve net zero emissions by 2050. However, which ones stand out among them? With the ongoing rise of cities seeking to become net zero, tracking and monitoring the city's journey in the energy transition is crucial. Establishing transparency within transition policies and initiatives is essential so cities can compare themselves and find benchmarks for solutions to common problems. In addition, it is indispensable to have a reference to identify which cities are moving forward and getting closer to achieving this goal. Qualified monitoring of the energy transition in cities plays a crucial role in differentiating and determining which cities from the "mixing pot" are pacesetters, followers, and those that are simply greenwashing.

**Methodology**

The research delves into exploring various options for net zero trackers, evaluating their methodologies for assessment, and the criteria influencing the ranking of municipal sustainable development. The approach involves analyzing and distinguishing between different data collection procedures, determining factors, and assessment indicators. The aim is to identify methods that are simple and applicable in urban scenarios and robust enough to fully evaluate the advancements, initiatives, and efforts of the city government and the community. Furthermore, the investigation aims to identify parameters and conditions that can be universally applied among all cities committed to net zero targets. This ensures that urban sustainable development remains transparent and accessible despite the unique limitations faced by each city.

**Results**

The expectation throughout the research is to provide a full disclosure not only on the significance of tracking the progress of sustainable urban development but also to identify the key indicators, information, data, calculations behind the ranks, and assessments that should be made so that these evaluations can be standardized, simple and understandable for city’s government and community.

**Conclusions**

The primary aim of this paper is to demonstrate that urban sustainable development at a municipal level can be measured, monitored, and evaluated. Establishing a standardized scale and measure of the city's commitment to decarbonizing the most emitting sectors can provide crucial information on the progress, strategies, and pathways adopted by certain cities. Tracking these initiatives with simple yet robust indicators can enhance development but also facilitate feedback on the areas that require improvement, ensuring that changes made are effective in moving towards achieving net zero. The evaluation of this data can set out a reflection of what the efforts of both city governance and community are achieving and also categorize the city as a pacesetter, follower, or simply as a greenwashing profile. In conclusion, while there remains uncertainty regarding the precise pathway to achieving energy transition within cities, this research delves into the need to track net zero initiatives as a way of guiding and providing equity to developing cities that share ambitious goals of achieving sustainability. This ensures that strides towards a greener future are not only made but are also inclusive and impactful.

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