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Correction

Correction: Juma et al. Power-System Flexibility: A Necessary Complement to Variable Renewable Energy Optimal Capacity Configuration. *Energies* 2023, *16*, 7432

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In the original publication [1], Sterl et al. [25] was not cited. The citation has now been inserted in Section 2.3 and should read:

To evaluate the smoothness of hybrid power output, numerous studies employ statistical measures. These measures include correlation coefficients between power outputs from different resources, as well as variations in energy balance shapes with an assumption that annual average energy production equals average demand [46,47]. Such techniques have been useful in identifying synergy between renewable resources in diverse areas. However, when implemented across different timescales, they may result in a number of shortcomings as detailed in reference [25] with a schematic illustration as shown in Figure 4 below:

1. Highly ratings for areas with complementary resources even when the strength of the actual resource is too weak for practical exploitation.
2. Undervaluing areas with less complementary resources though strong enough to be useful for economic exploitation.

In the original publication, Sterl [48] and Cantor et al. [49] were not cited. The citation has now been inserted in Section 2.3 and should read:

Using resource complementarity and CF, Sterl [48] presents a new metric for calculating the stability coefficient for two sources: solar and wind. By introducing a comparable metric for three sources, the optimal share coefficient, or k_{stab}, this study aims to address similar situations and provide a tool for enhancing the planning and operation of current hydroelectric dominated grids specifically in East Africa. The metric measures the decrease in the coefficient of variance of the CF of a hybrid w-s-h system with hydro as the baseline while solar and wind carry equal weight. The metric gives the influence of either wind or solar to balance the electric power generation. Stability coefficient, ϕ_s, is mathematically defined as in Equation (7) which is derived from the expression of a total variation of a finite function [49].

There was an error in the original publication. In citing Cantor et al. and Iwueze et al., erroneously cited as Cantor and Daina. The paragraph modified to correct the mix up.

A correction has been made to Section 2.3 *(last paragraph)*:

A measure of regularity and measure of complementarity are inextricably interlinked. Analysis of a function's total variation is a typical method of measuring its regularity. One common approach of quantifying regularity of a function is by using its overall variation, which accounts for discontinuities. Studies by Cantor et al. [49] and Iwueze et al. [50], on time series analysis, have explored the concept of total variation. This new metric is

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anchored on this concept. With transmission constraints, this metric, k_{stab}, can be extended to examine the possible synergies between power plants located in different locations, even though it was applied to temporal complementarity for the three resources in the same location for this study.

48. Sterl, S. Seasons of Power-Streamlining Strategies for Renewable Electricity Generation from Sun, Wind and Water in Sub-Saharan Africa. 2021. Available online: https://www.researchgate.net/publication/354758232_Seasons_of_Power_-_Streamlining_strategies_for_renewable_electricity_generation_from_sun_wind_and_water_in_sub-Saharan_Africa (accessed on 20 October 2022).

With this correction, the order of some references has been adjusted accordingly. The authors state that the scientific conclusions are unaffected. This correction was approved by the Academic Editor. The original publication has also been updated.

Reference

1. Juma, D.; Munda, J.; Kabiri, C. Power-System Flexibility: A Necessary Complement to Variable Renewable Energy Optimal Capacity Configuration. *Energies* **2023**, *16*, 7432. [CrossRef]

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