

# Power Curve Working Group 4<sup>th</sup> Meeting Round Robin Results Overview

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## Round Robin Overview

- Exercise 2.1: Rotor Equivalent Wind Speed (Time Series)
- Exercise 2.2: Turbulence Correction (Time Series)
- Exercise 2.3: Rotor Equiv. Wind Speed & Turbulence Correction (Time Series)
- Exercise 2.4: Frequency Distribution methods

- DS1: Cold climate moderately complex forested site (trees not too tall).
- DS2: Flat terrain site
- DS3: Dense Forested site



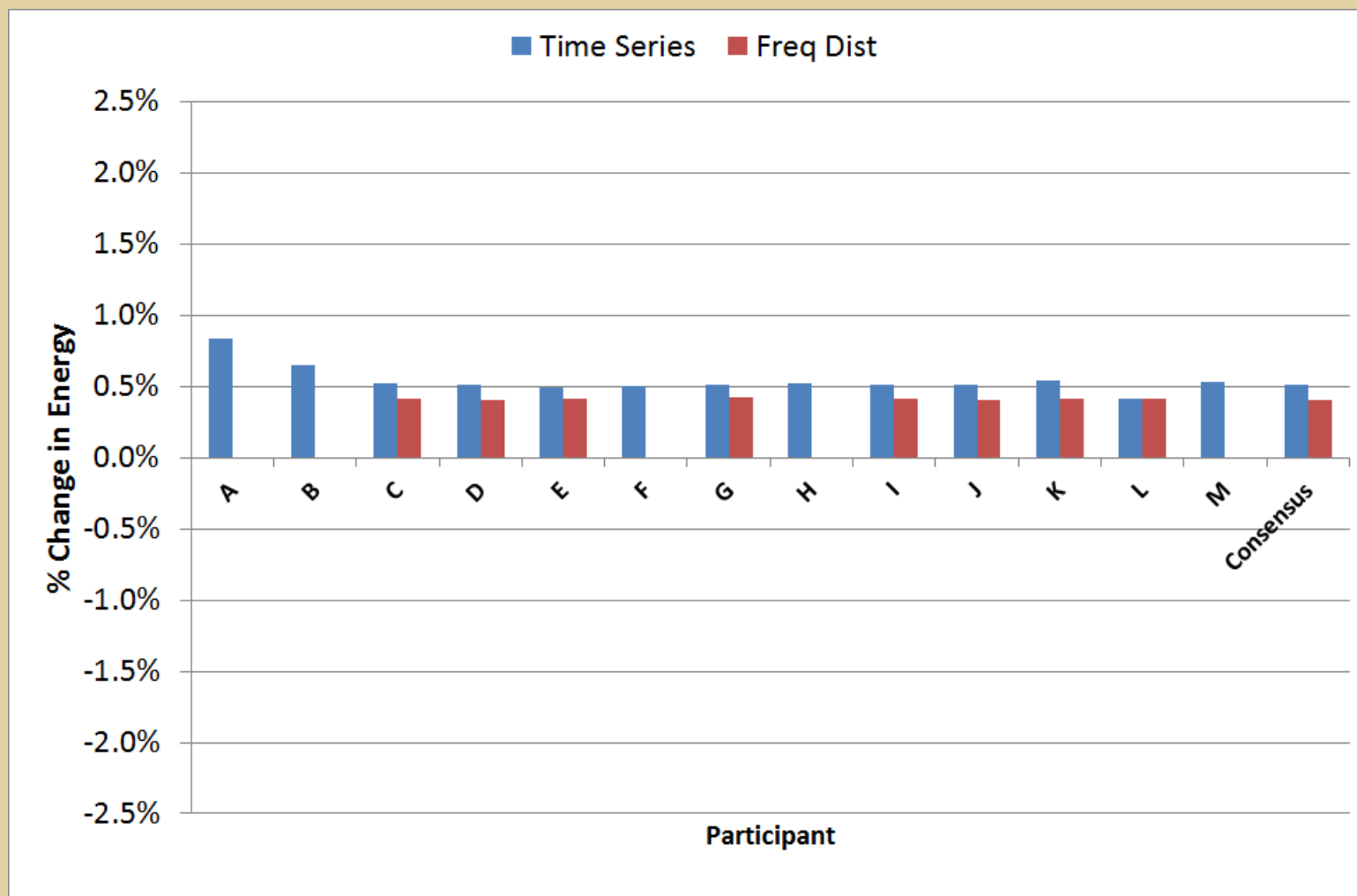
Image of Dataset 3 site

- Filtered datasets provided for all sites
- Frequency distributions provided for Dataset 1.
- Power data available for Dataset 1 (not formally part of exercise).

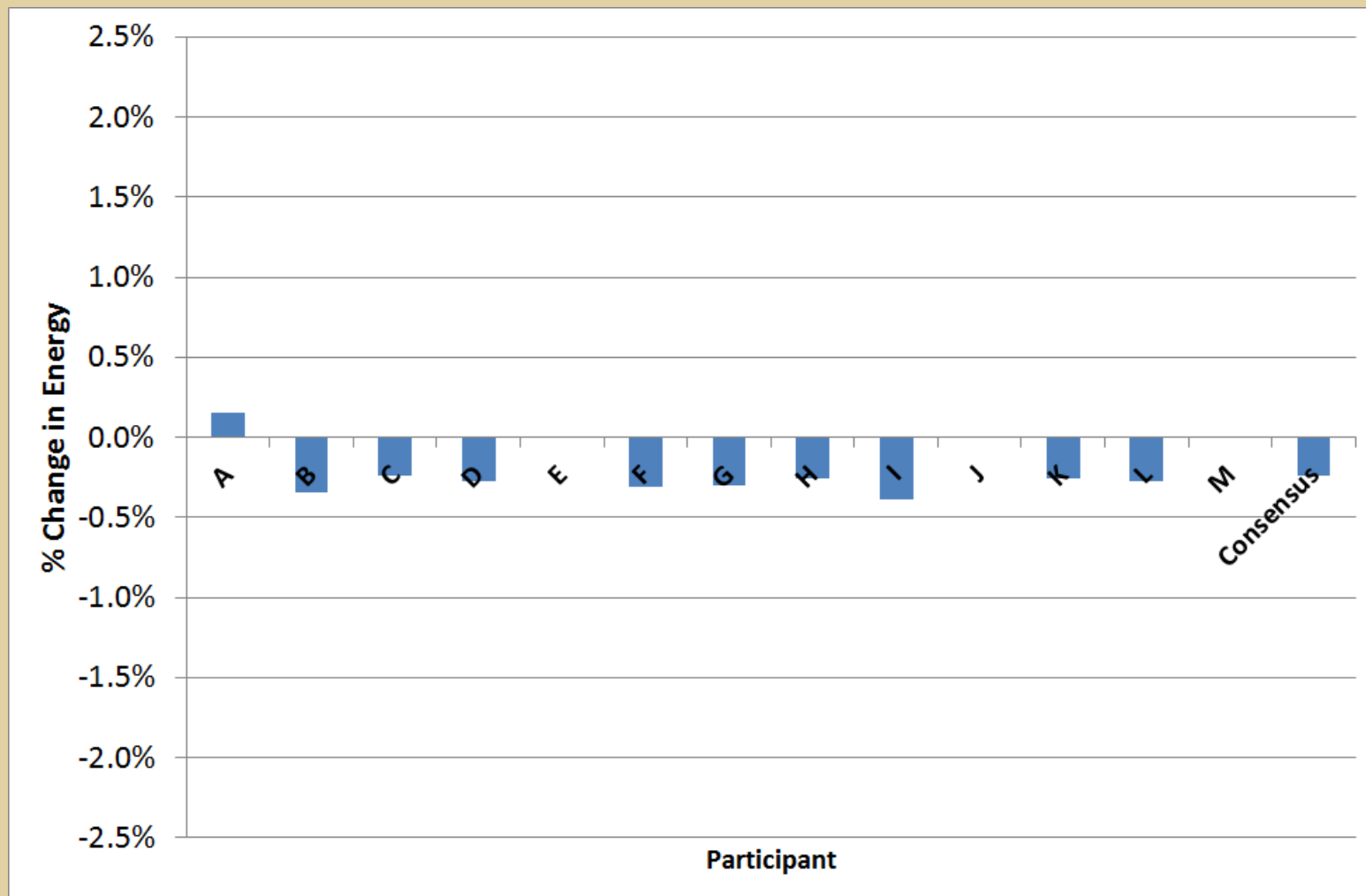
# Impact of Using Rotor Equivalent Wind Speed

The background of the slide is an abstract composition of vibrant orange and yellow streaks and rays, creating a sense of dynamic energy and movement. These streaks originate from various points and converge towards the center, giving the impression of light or energy flowing across the frame. The overall color palette is warm, ranging from deep reds and oranges to bright yellows and whites at the points of convergence.

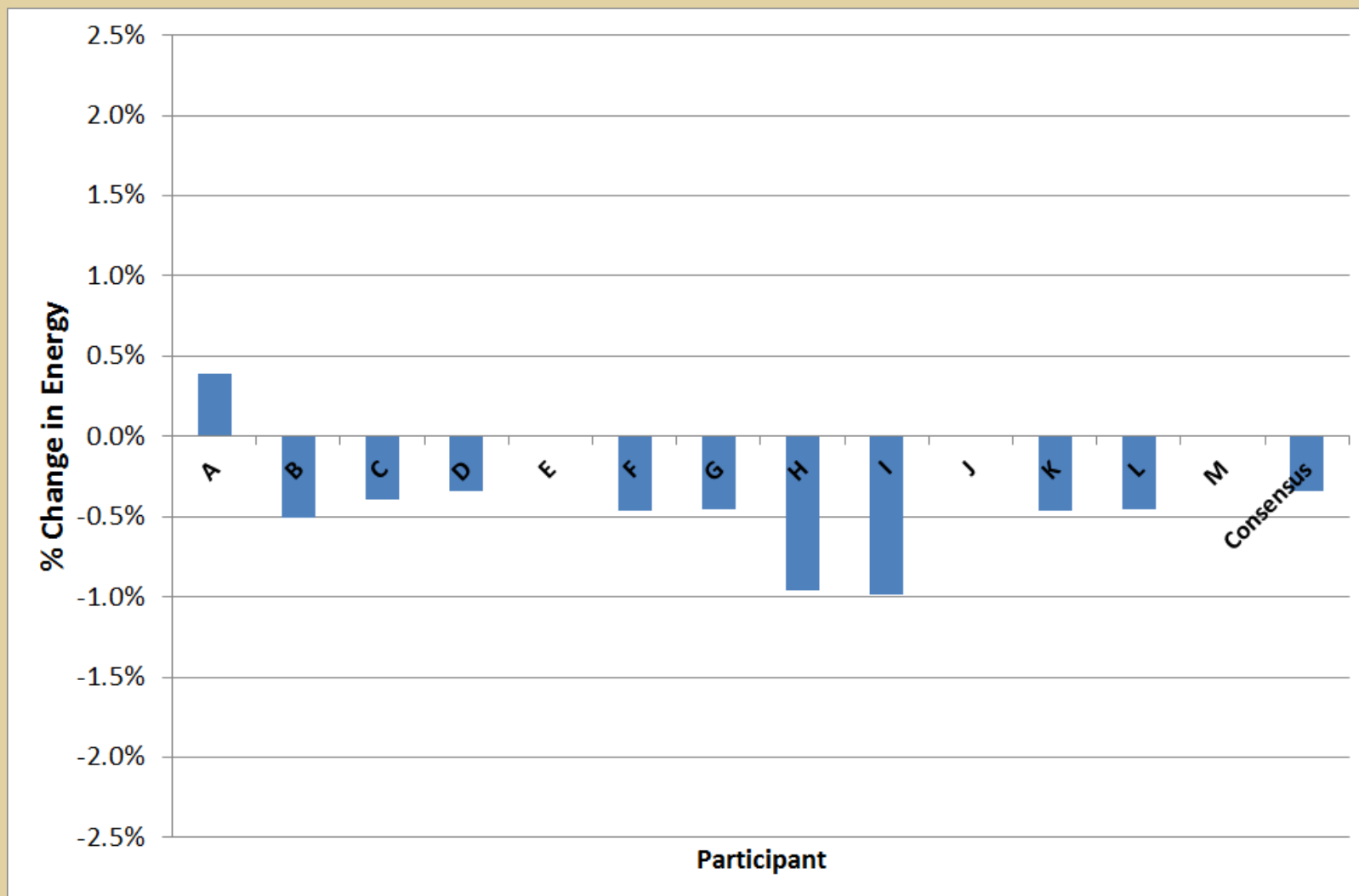
## Impact of Using Rotor Equivalent Wind Speed (Dataset 1)



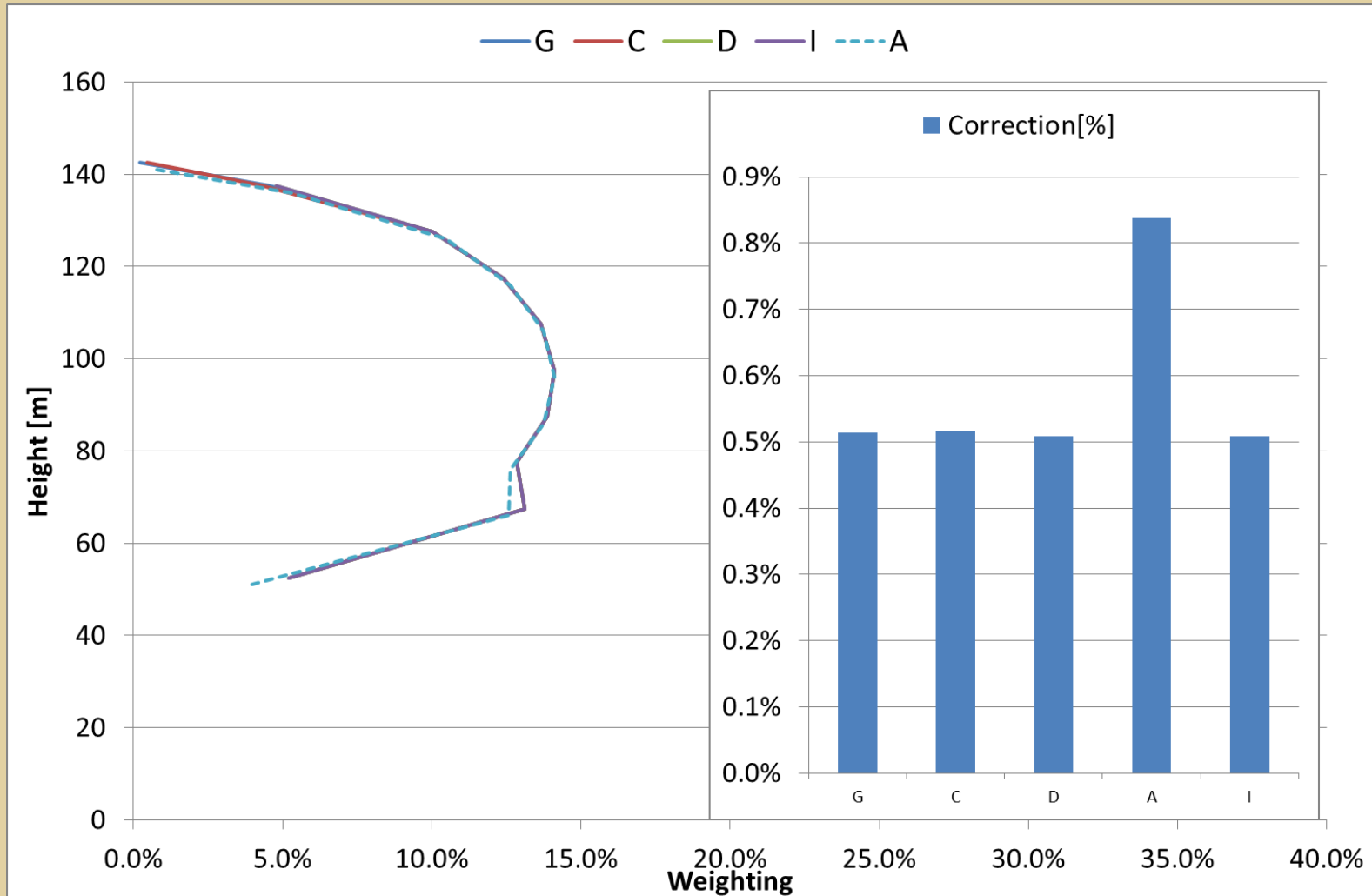
## Impact of Using Rotor Equivalent Wind Speed (Dataset 2)



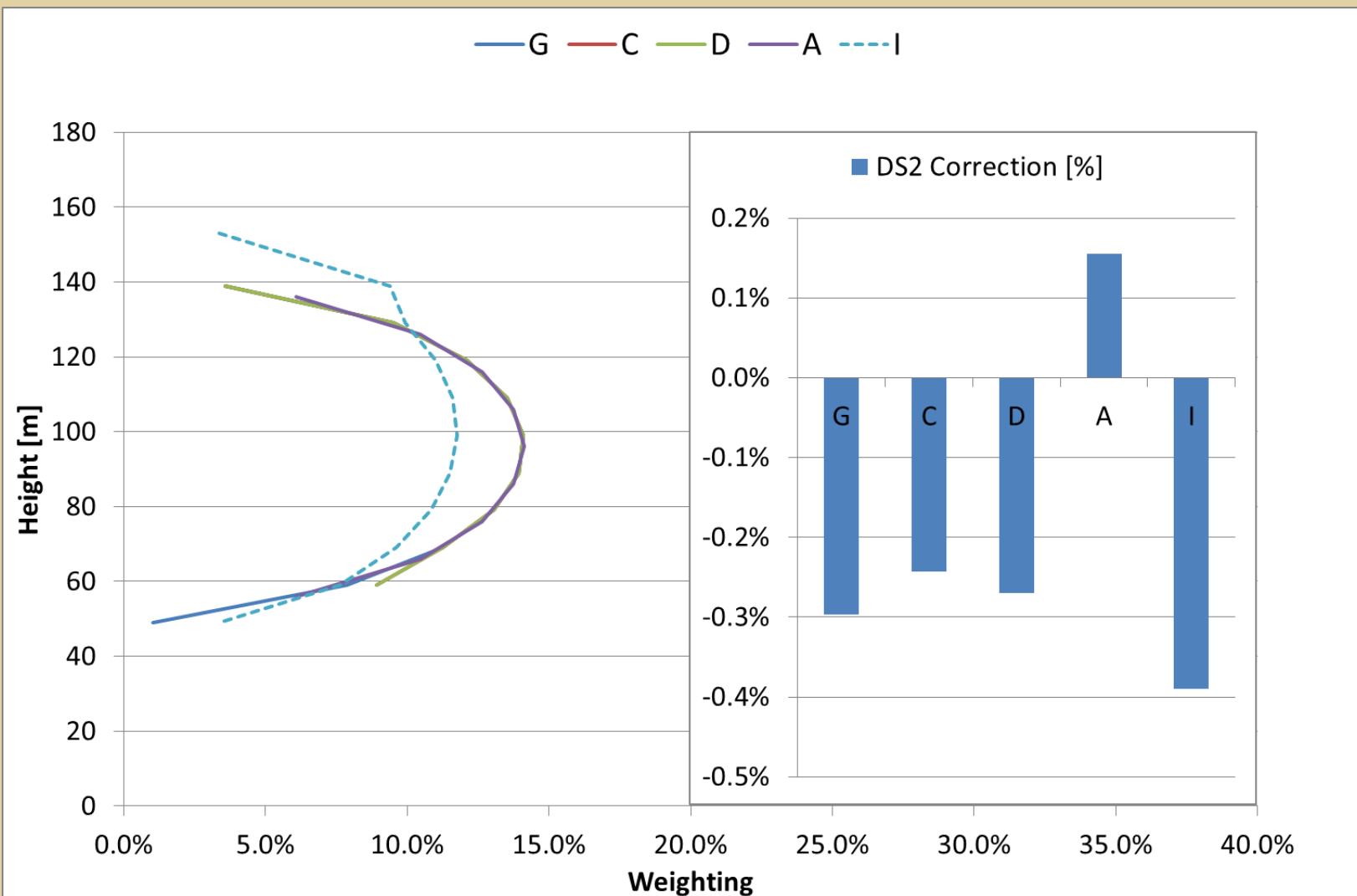
## Impact of Using Rotor Equivalent Wind Speed (Dataset 3)



## Impact of Using Rotor Equivalent Wind Speed: Supplementary Results (Dataset 1)

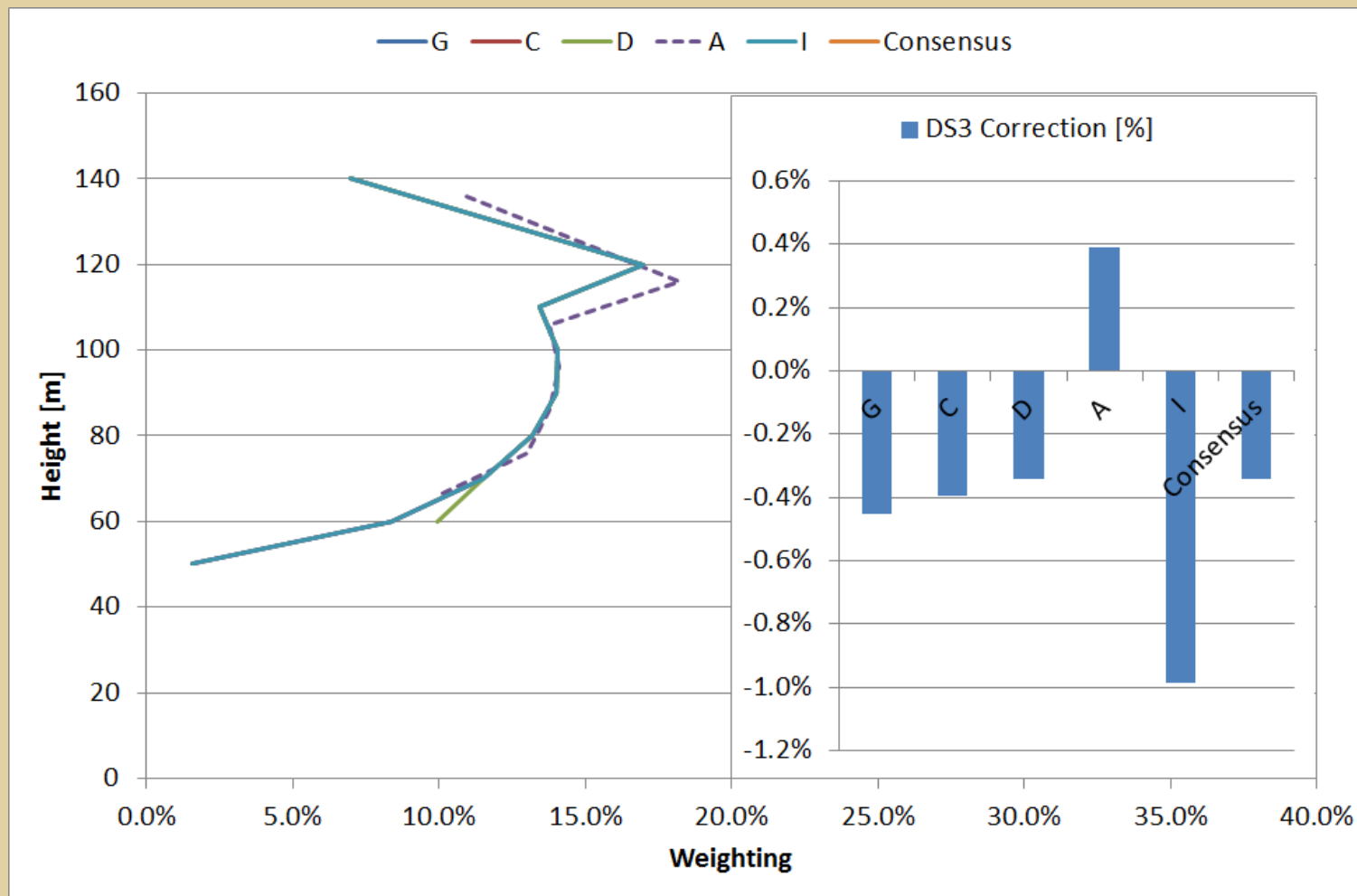


## Impact of Using Rotor Equivalent Wind Speed: Supplementary Results (Dataset 2)

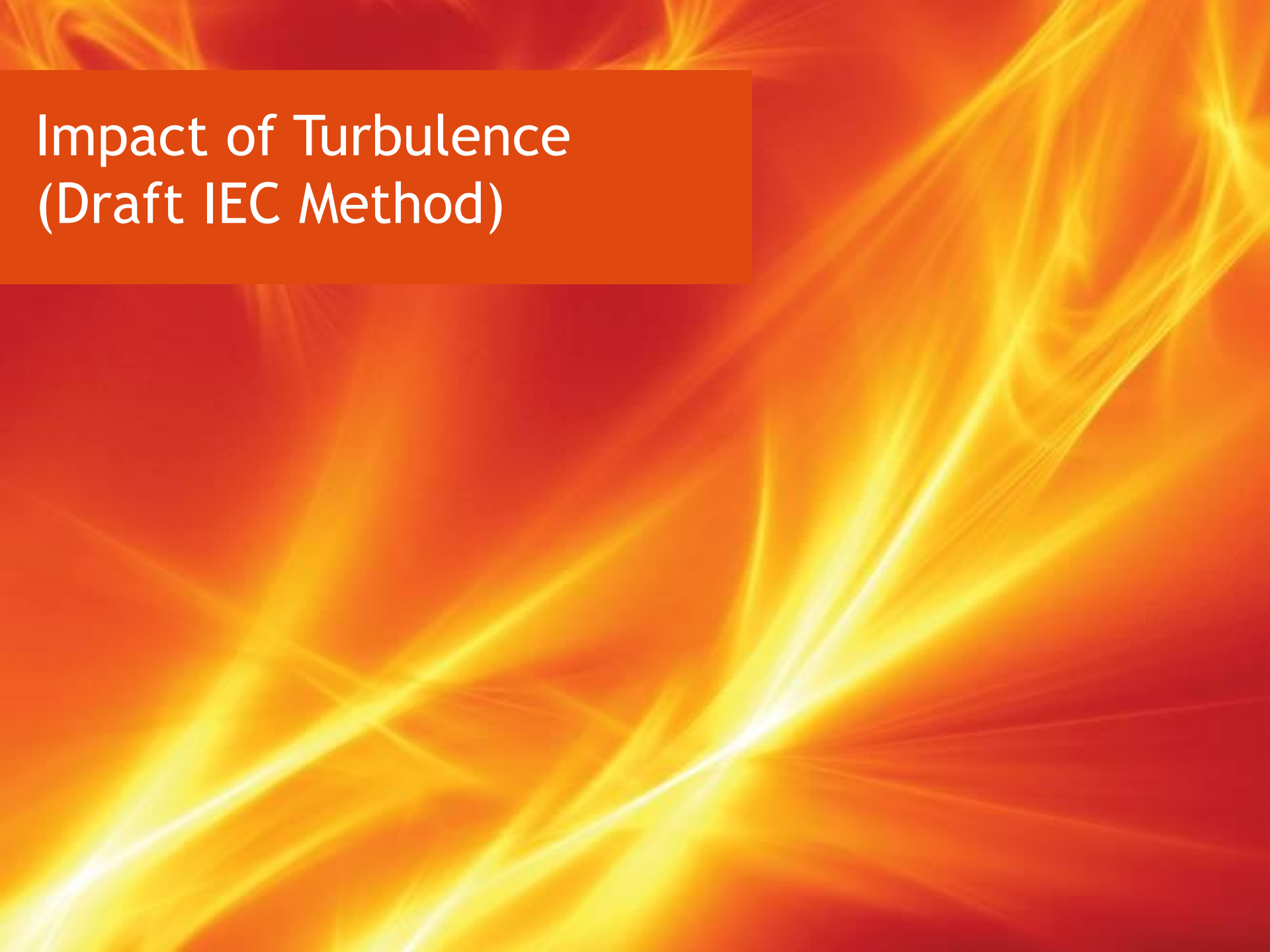




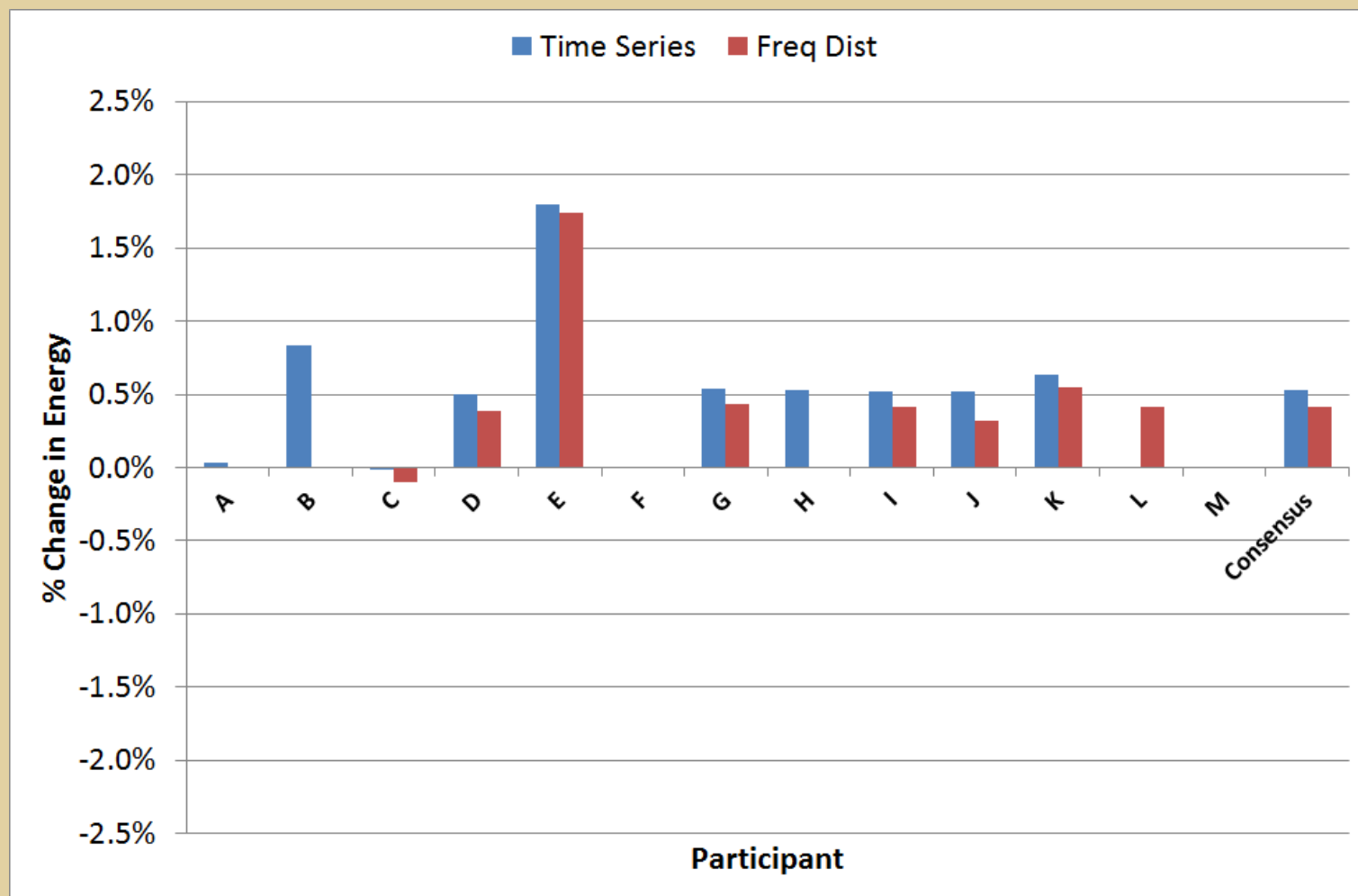
## Impact of Using Rotor Equivalent Wind Speed: Supplementary Results (Dataset 3)



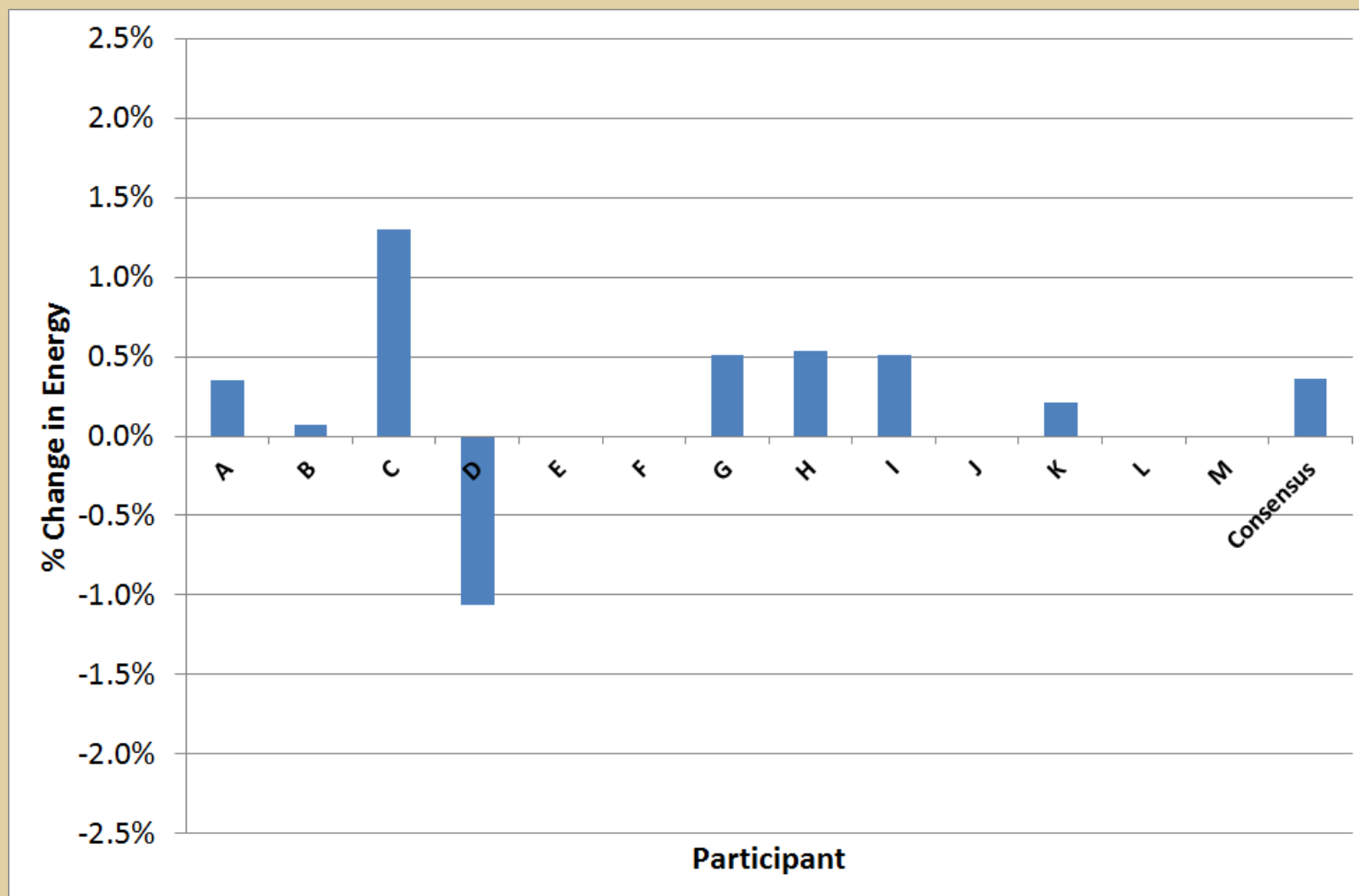
# Impact of Turbulence (Draft IEC Method)



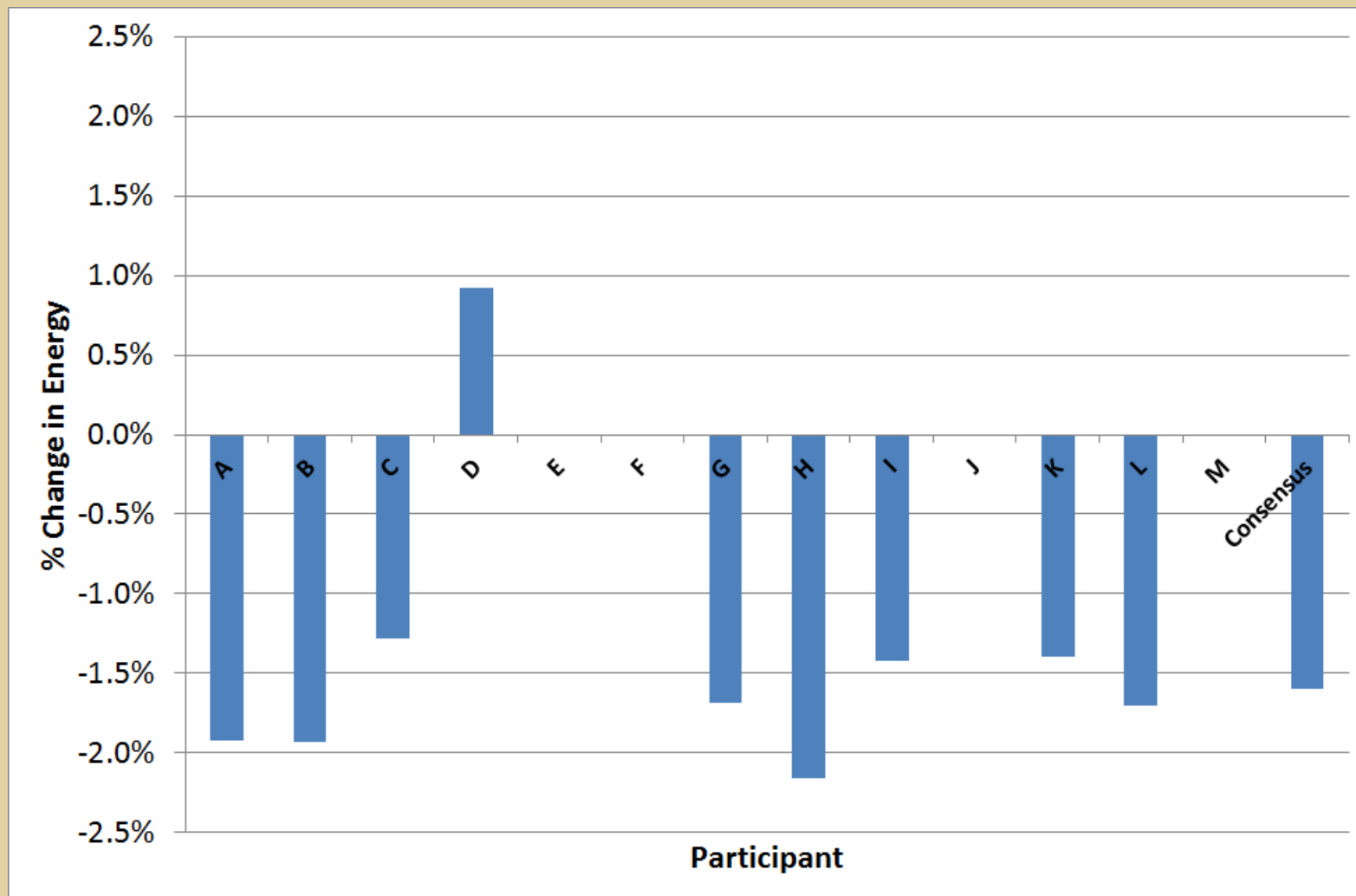
## Impact of Turbulence (IEC Method): Dataset 1



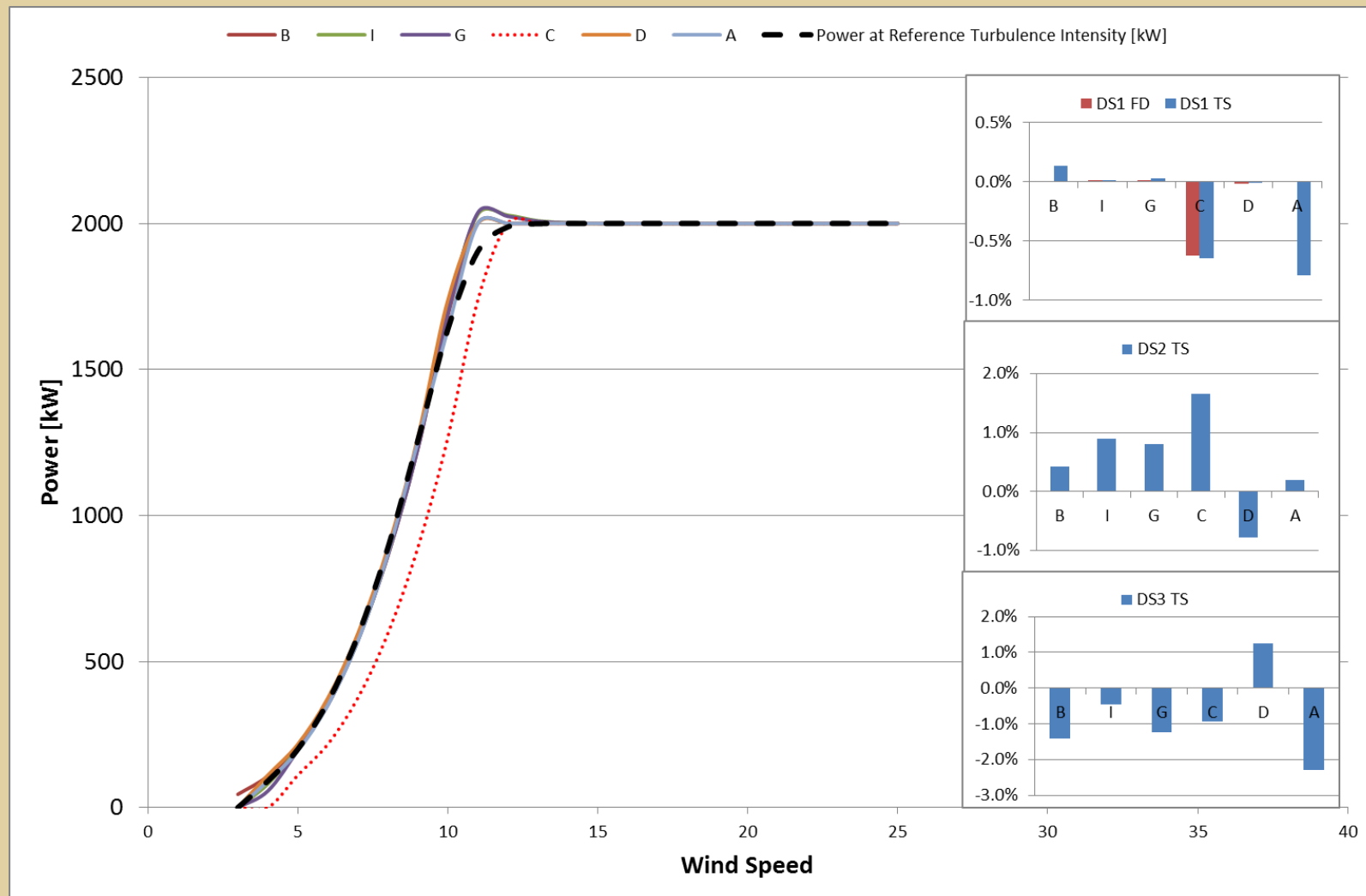
## Impact of Turbulence (IEC Method): Dataset 2



## Impact of Turbulence (IEC Method): Dataset 3



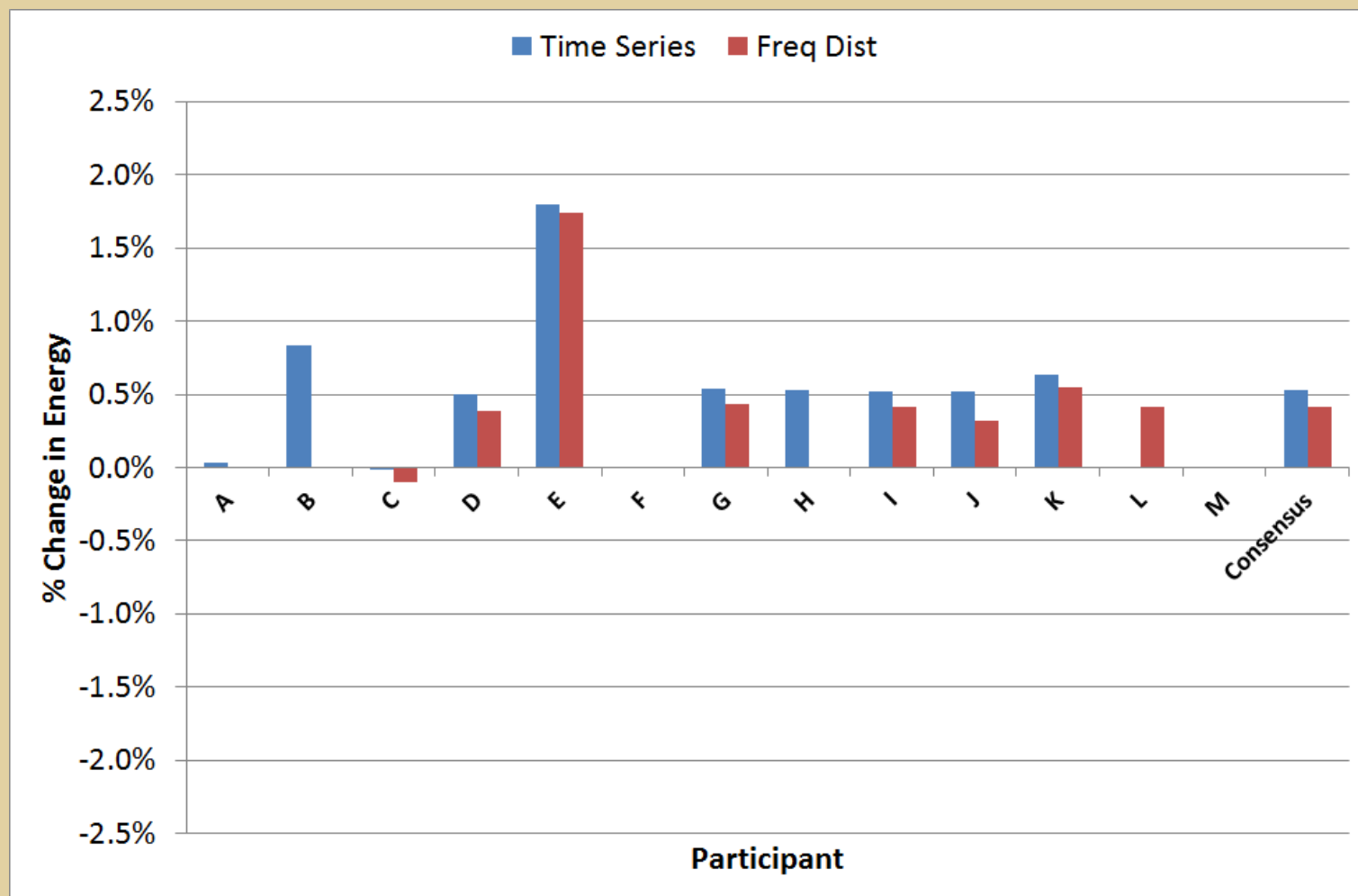
## Impact of Turbulence: Supplementary Results (zero turbulence curve)



The background of the slide is an abstract composition of vibrant orange and yellow streaks and rays, creating a sense of dynamic energy and movement. These streaks originate from various points and converge towards the center, with some appearing as sharp, bright lines and others as softer, more diffused glows. The overall effect is reminiscent of a stylized flame or a high-speed light trail.

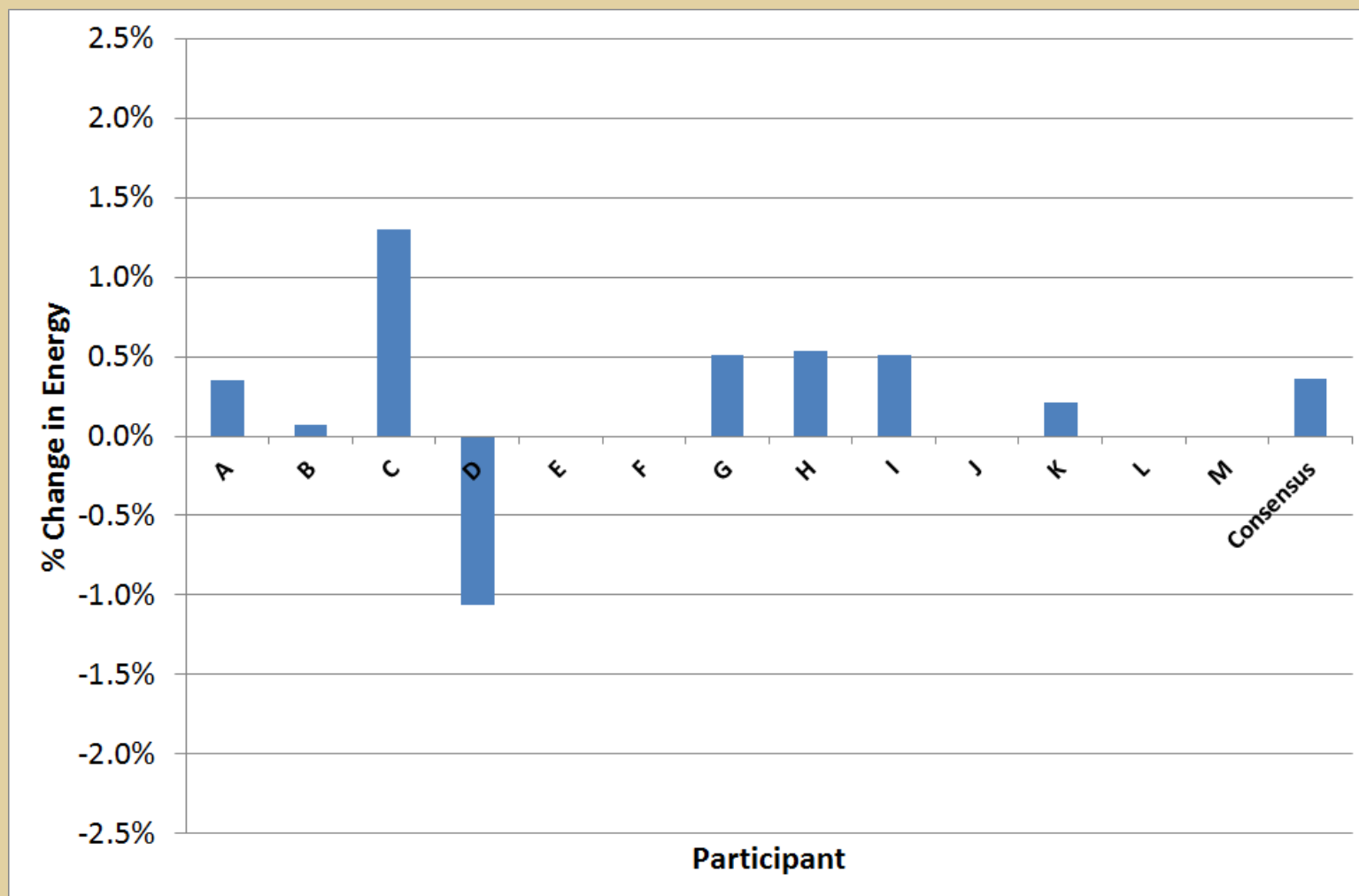
# Combined Results (Turbulence & Rotor Equiv)

## Impact of Turbulence (IEC Method): Dataset 1

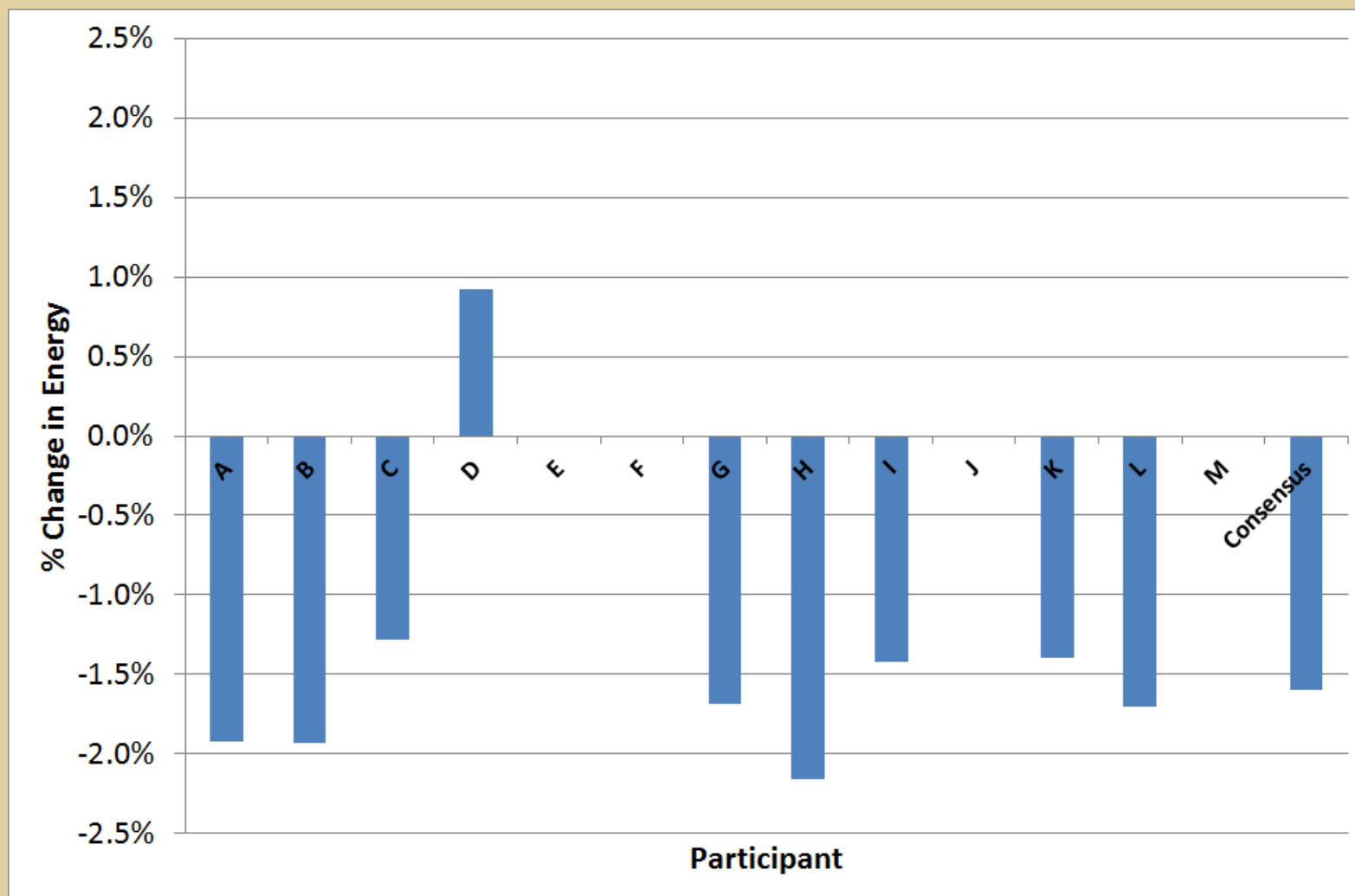




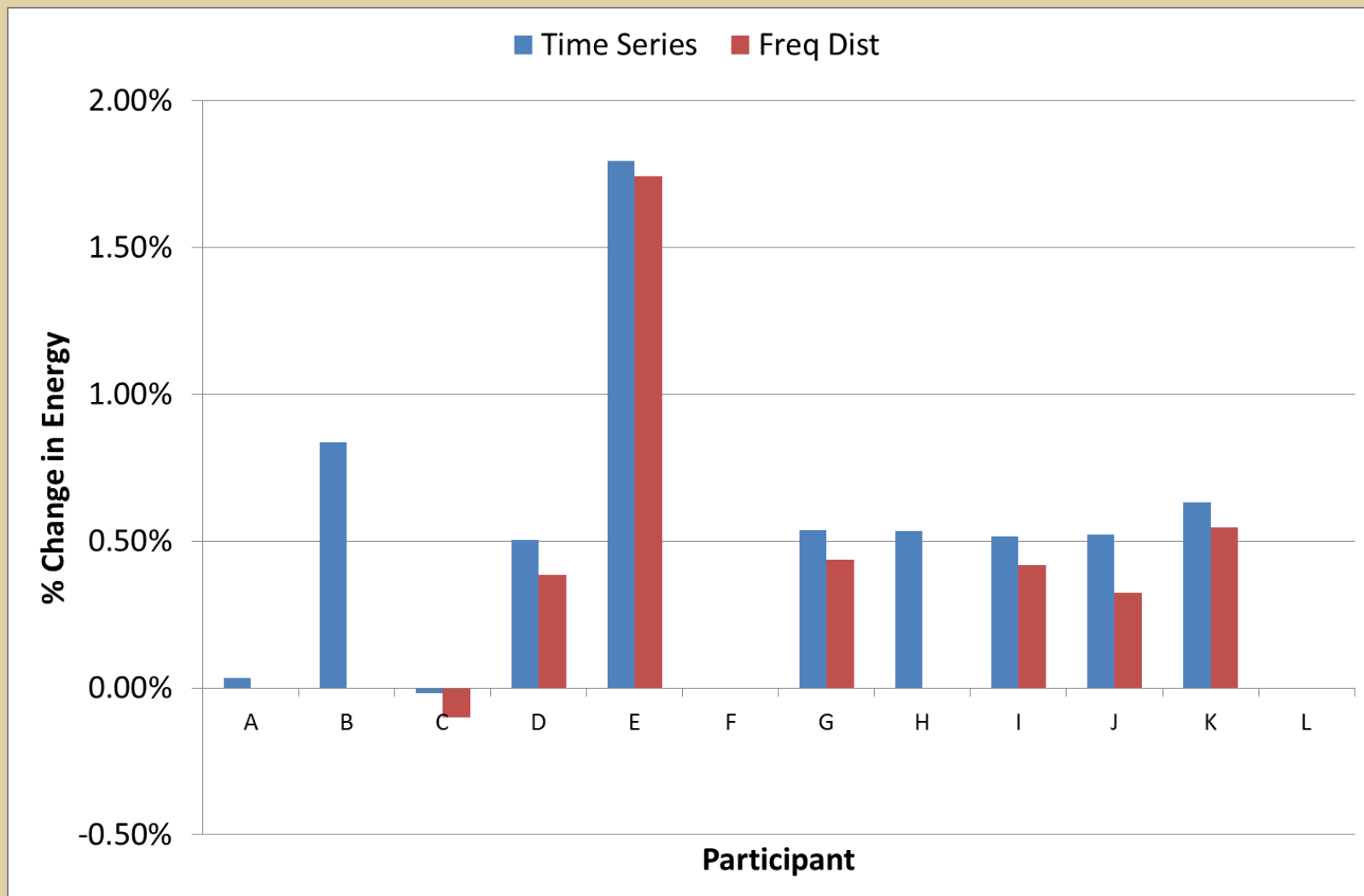
## Turbulence and Rotor Equivalent Wind Speed: Dataset 1



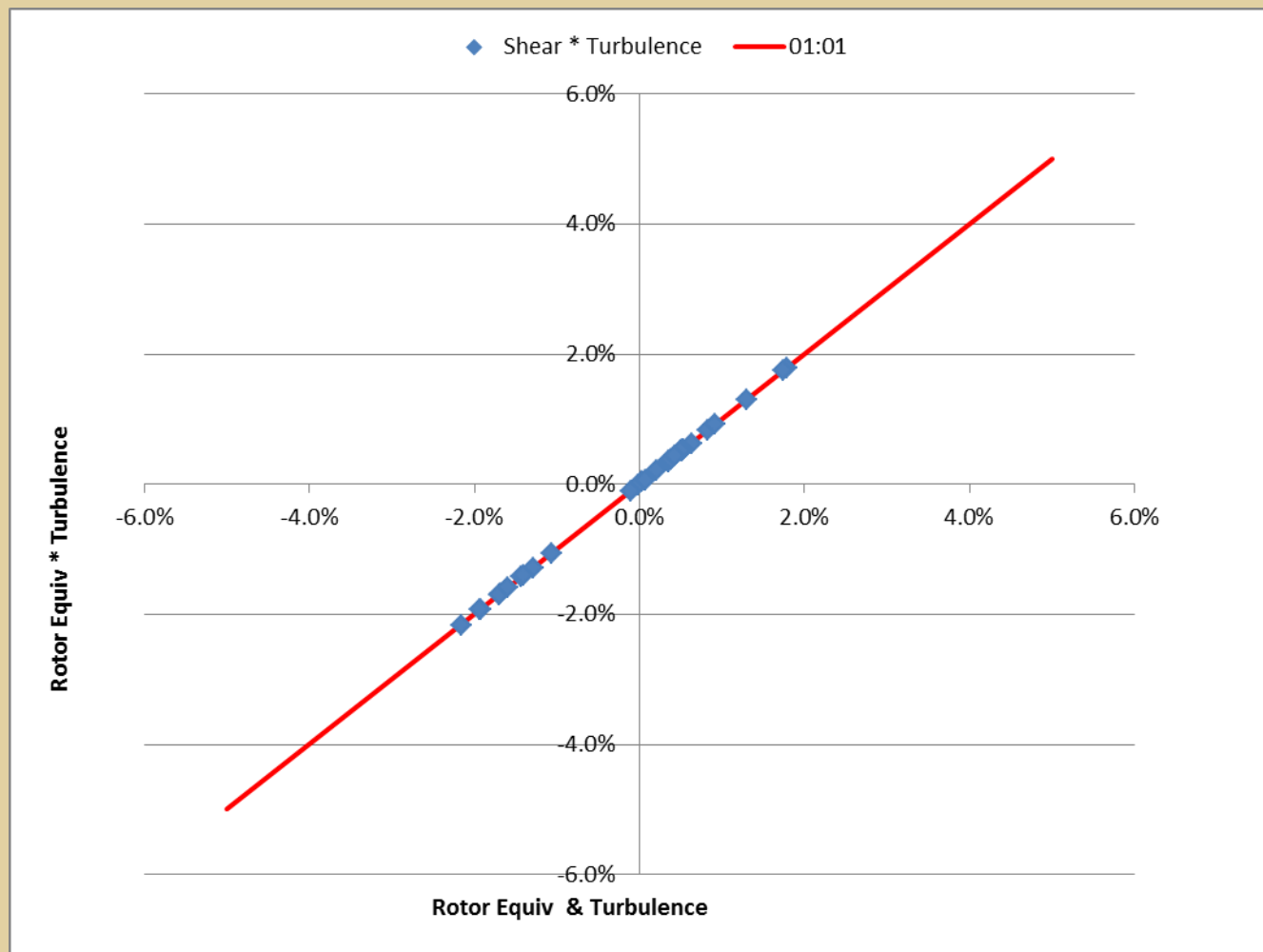
## Turbulence and Rotor Equivalent Wind Speed: Dataset 2



## Turbulence and Rotor Equivalent Wind Speed: Dataset 1.



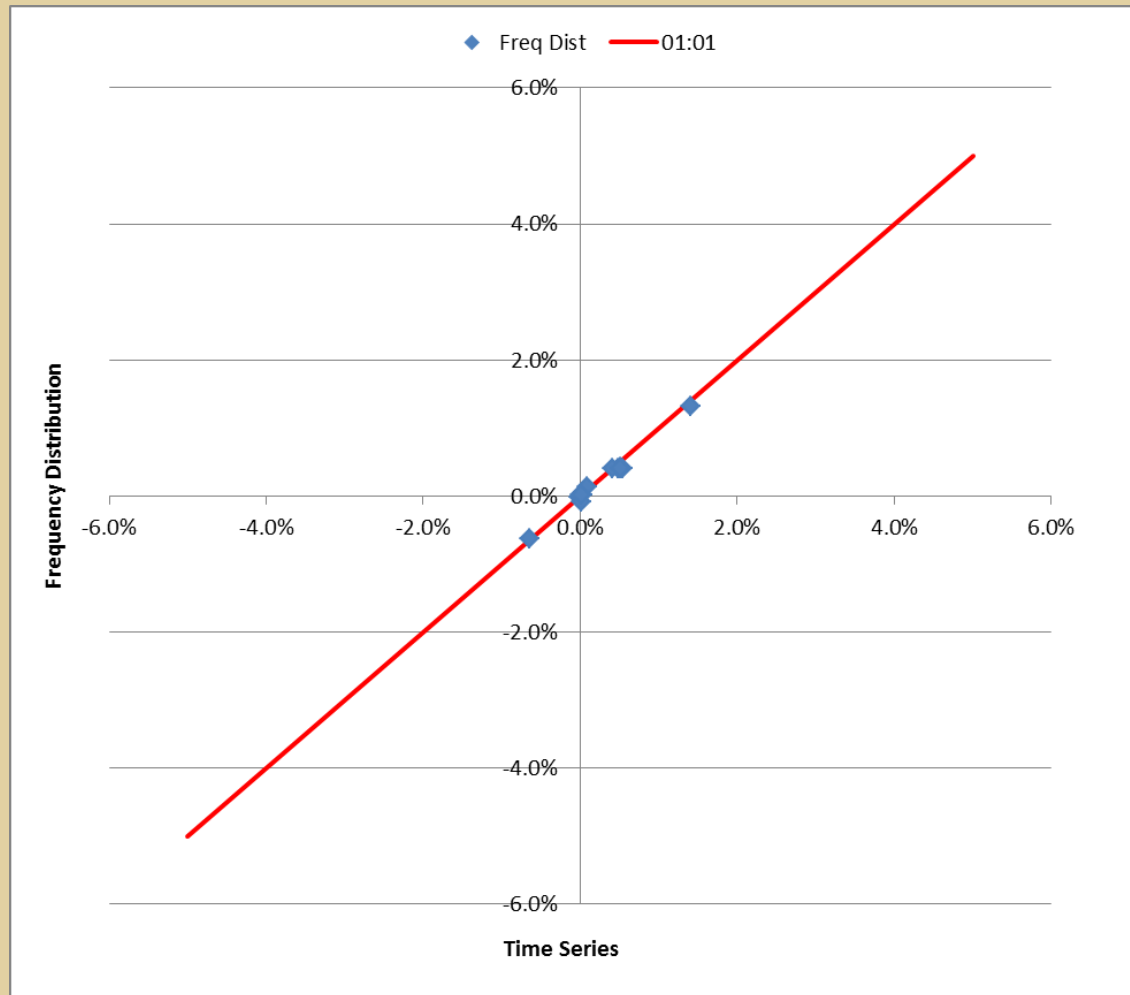
## Linearity of Results: Datasets 1-3



# Time Series vs. Freq Dist

The background of the slide is an abstract, dynamic composition of bright orange and yellow streaks and rays, resembling a stylized fire or a high-speed light trail. These streaks originate from various points and converge towards the center-right, creating a sense of movement and energy. The overall color palette is warm, with deep oranges and bright yellows.

## Time Series vs. Freq Dist





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power for good