

Peer Review

Review of: "Influence of a City Block on ES-CFD Coupled Analysis"

Alessandro D'Ausilio¹

1. Independent researcher

The paper presents an interesting approach to (ES-CFD) coupling. The main limitation is the lack of benchmarking (validation) of the 'basic' model. Regarding Language/Grammar: excessive use of 'thus' in the introduction and, in general, too short sentences often not completely linked to each other. To enhance the flow and readability and be more sound, some sentences in the introduction could be rephrased.

Questions:

"The analysis was conducted within the bounds of common sense." Can the author clarify this sentence and give more details about the city block model?

"A basic study requires precise calculations." Also a more detailed one, in the reviewer's opinion. Does basic mean 'fundamental' here?

Minor changes:

1. In RANS, mesh independency should always be performed. Can the author provide further details on how the results behave in dependency on the grid size?
2. Natural ventilation from windows cannot be simplified as just imposing a value representative of either inflow or outflow. There is a profile at the window which depends on the pressure around the building and the wind velocity. From Table 3, it seems that a fixed value (flow rate of 0.011 kg/s) is used and imposed as outflow bc. The author should justify the choice.

Declarations

Potential competing interests: No potential competing interests to declare.