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Experimental and Analytical Investigation on Pipe Sizes for a Coaxial Borehole Heat Exchanger

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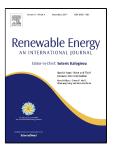
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### ACCEPTED MANUSCRIPT

#### Highlights

- Experimentally verifies a coaxial heat exchanger simulation with laminar outer flow.
- Experimental results are used to investigate short-term heat exchanger behavior.
- A semi-analytical model is found to successfully model the laminar flow condition.
- Compares long-term performance and required length using a semi-analytical model.
- Findings show that a larger inner pipe diameter is beneficial for the tested cases.

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