

## **Compound Catenary Preventing Break of Contact Wire at Insulated Overlap**

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When a train comes to a standstill at an insulated overlap, breaking of contact wire may occur due to the arc generated between the pantograph and the contact wire. Therefore, we have developed a compound catenary to prevent the breaking of contact wires at the insulated overlap when a train is stopping. The proposed compound catenary has a function of extinguishing arc when the heat by the arc softens the contact wire. This paper describes the evaluation results of the current collection performance of the proposed compound catenary. In addition, it describes a monitoring method of the strain of additional wires to detect generation of the arc.