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(54) **RIS ASSISTED ENERGY STEERING FOR ENERGY HARVESTING DEVICES**

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(57) **ABSTRACT**

A reconfigurable intelligent surface (RIS) in a radio network includes a plurality of passive elements which are controlled by a plurality of active elements distributed among the plurality of passive elements, wherein the plurality of active elements configure the reconfigurable intelligent surface to perform, based on at least one request message, at least one of sensing incident electromagnetic radiation harvested over at least one frequency range by the passive elements; and steering energy of the harvested electromagnetic radiation towards at least one energy harvesting device in the radio network. A network node is configured to select at least one reconfigurable intelligent surface in a radio network; and send at least one request message to the selected reconfigurable intelligent surface to cause the reconfigurable intelligent surface to steer harvested electromagnetic radiation within at least one frequency range toward at least one energy harvesting device in the radio network.