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### (54) POWER GENERATION FROM VEHICLE WHEEL ROTATION

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#### (57)ABSTRACT

The disclosure is directed to an apparatus for generating energy in response to a vehicle wheel rotation. The apparatus may include a first roller comprising a curved roller surface configured to be positioned in substantial physical contact with a first wheel of the vehicle. The first roller may be configured to rotate in response to a rotation of the first wheel. The apparatus may further include a first shaft rotatably couplable to the first roller such that rotation of the first roller causes the first shaft to rotate. The apparatus may further include a first generator operably coupled to the first shaft. The generator may be configured to generate an electrical output based on the rotation of the first shaft and convey the electrical output to an energy storage device or to a motor of the vehicle that converts electrical energy to mechanical energy to rotate one or more wheels of the



