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(54) Title: IN-SITU TESTING OF ELECTRIC DOUBLE LAYER CAPACITORS IN ELECTRIC METERS

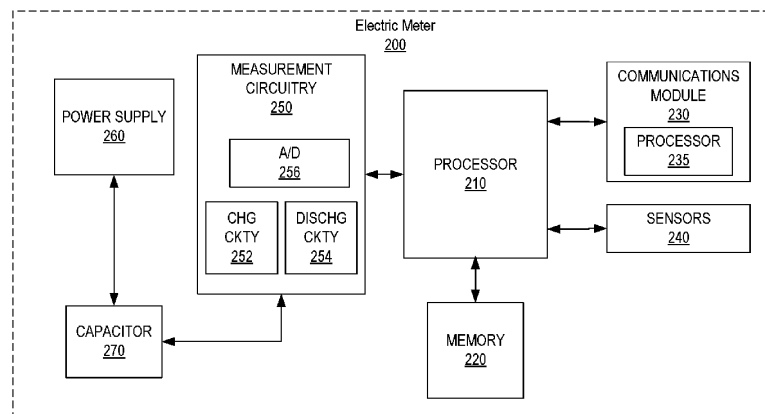


FIG. 2

(57) **Abstract:** A method for determining degradation of a capacitor in an electric meter includes, charging the capacitor to a predetermined voltage value during a charging period using charging circuitry of the electric meter, discharging the capacitor, during a discharge period, from the predetermined voltage value using discharging circuitry of the electric meter, measuring, during the discharge period, a first capacitor voltage value at a first time and a second capacitor voltage value at a second time later than the first time using capacitor measurement circuitry of the electric meter, determining, by a processor of the electric meter, a capacitance value of the capacitor based on the first voltage value, the second voltage value, the first time, and the second time, comparing the determined capacitance value to a capacitance threshold value, and determining that the capacitor is in a degraded condition when the calculated capacitance value is below the capacitance threshold value.

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