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(54) Title: SYSTEM AND METHOD FOR CONTROLLING A MULTI-STATE ELECTROCHEMICAL CELL

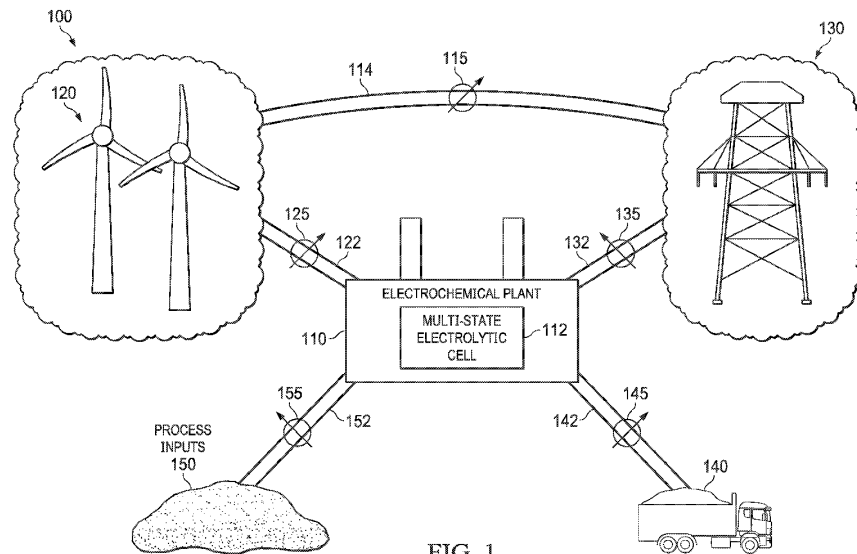


FIG. 1

(57) **Abstract:** A system for controlling an electrochemical production process includes a variable controllable power circuit and an electrolytic cell. The cell includes two electrodes and operates in different possible states dependent on the potential difference across the electrodes. The system includes a power circuit controller that causes the power circuit to apply a given potential difference across the electrodes to initiate operation of the cell in the state associated with the given potential difference. The possible states include a production state associated with a first non-zero potential difference in which a product of interest is produced, and an idle state associated with a second non-zero potential difference in which the product of interest is not produced. A monitoring and control subsystem maintains a predefined set of production process conditions, including a predefined operating temperature range, while the cell operates in both the production state and the idle state.

[Continued on next page]

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Declarations under Rule 4.17:

- *as to the identity of the inventor (Rule 4.17(i))*
- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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