CLAIMS

1. An extended-range full-electric low-speed tractor, wherein comprises a system control unit, a battery pack, a frequency conversion driver, a bidirectional DC-DC converter, a generating set and a drive system, the generating set comprising an engine and a generator connected to the engine, the frequency conversion driver comprising an AC/DC converter and a DC/AC bidirectional converter; wherein the generating set is connected to the AC/DC converter and then divided to two branch circuits, one being connected to the bidirectional DC-DC converter and the battery set in sequence via a DC bus and the other one being connected to the DC/AC bidirectional converter; the battery pack, the bidirectional DC-DC converter, the generating set and the frequency conversion driver are all signal controlled by the system control unit, and the system control unit adjusts the input and output voltages of the battery pack by means of the bidirectional DC-DC converter, and finally controls the charging and discharging current, so as to make the frequency conversion driver be stable and ensure energy balance of the system; the DC/AC bidirectional converter is connected to a load; a charging-discharging power of the battery set is greater than or equal to a power of the drive system; the drive system comprises a drive motor, a gearbox, a drive axle and a drive wheel, all of which are connected in sequence; and the DC/AC bidirectional converter is connected to the drive motor.

2. The extended-range full-electric low-speed tractor according to claim 1, wherein the tractor further comprises an auxiliary power supply connected to the DC bus.

3. The extended-range full-electric low-speed tractor according to claim 1, wherein the tractor further comprises a 24V DC power supply connected to the DC bus.