a power management system disposed within the main chassis body and electrically connected to the charging station and the battery bank.

[0004b] Another aspect of the present disclosure provides a modular charging station, comprising:

a main chassis body, comprising:

a first charging station interface positioned along an outer surface of the main chassis body;

a second charging station interface positioned along an outer surface of the main chassis body; and

an input power terminal;

a first charging station positioned on a first movable sub-chassis disposed within the main chassis body and electrically connected to the first charging station interface;

a second charging station positioned on a second movable sub-chassis disposed within the main chassis body and electrically connected to the second charging station interface;

a battery bank positioned on a third movable sub-chassis disposed within the main chassis body and electrically connected to the input power terminal and the first and second charging stations;

a renewable power generation system connected to an outside surface of the main chassis body and electrically connected to the battery bank via the input power terminal; and

a power management system disposed within the main chassis body and electrically connected to the first and second charging stations and the battery bank.

CLAIMS

1. A modular charging station, comprising:
   a main chassis body, comprising:
      a charging station interface positioned along an outer surface of the main chassis body; and
      an input power terminal;
   a charging station positioned on a first movable sub-chassis disposed within the main chassis body and electrically connected to the charging station interface;
   a battery bank positioned on a second movable sub-chassis disposed within the main chassis body and electrically connected to the input power terminal and the charging station; and
   a power management system disposed within the main chassis body and electrically connected to the charging station and the battery bank.

2. A modular charging station according to claim 1, further comprising a renewable power generation system connected to an outside surface of the main chassis body and electrically connected to the battery bank via the input power terminal.

3. A modular charging station according to claim 2, wherein the input power terminal is further configured to be connected to an electrical source connected to an electric power grid.

4. A modular charging station according to claim 3, wherein the power management system is configured to recharge the battery bank by selecting between the renewable power generation system and the electrical source connected to the electric power grid according to a cost model.

5. A modular charging station according to claim 2, wherein the renewable power generation system comprises at least one of a solar array or a wind turbine.

6. A modular charging station according to claim 1, further comprising:
   a second charging interface positioned along an outer surface of the main chassis body; and
   a second charging station positioned on a third movable sub-chassis disposed within the main chassis body and electrically connected to the second charging station interface, the battery bank, and the power management system.

7. A modular charging station according to claim 6, wherein:
   the first charging station comprises at least one of a Level 2 or Level 3 charging station; and
   the second charging station comprises a Level 1 charging station.

8. A modular charging station according to claim 6, further comprising a second battery bank positioned on a fourth movable sub-chassis disposed within the main chassis body and electrically connected to the input power terminal and the second charging station.

9. A modular charging station according to claim 6, wherein the power management system is configured to load share charging capacity between each charging station.

10. A modular charging station according to claim 1, wherein:
    the charging station is connected to two charging cables; and
    the power management system is configured to allow the charging station to charge two vehicles simultaneously.

11. A modular charging station according to claim 1, wherein the power management system is positioned on a third movable sub-chassis.

12. A modular charging station according to claim 1, further comprising a mobile application interface configured to allow a user to interact with the charging station.

13. A modular charging station according to claim 1, wherein:
    the main chassis body further comprises:
        a first set of rails positioned along a floor of the main chassis body and aligned with a first access door; and
        a second set of rails positioned along a floor of the main chassis body and aligned with a second access door;

the first movable sub-chassis comprises a set of wheels arranged to engage the first set of rails; and

the second movable sub-chassis comprises a second set of wheels arranged to engage the second set of rails.

14. A modular charging station according to claim 1, wherein:

the first movable sub-chassis is mounted to a first slidable track positioned along a floor of the main chassis body and aligned with a first access door, wherein the first slidable track is configured to extend outwardly through the first access door; and

the second movable sub-chassis is mounted to a second slidable track positioned along a floor of the main chassis body and aligned with a second access door, wherein the second slidable track is configured to extend outwardly through the second access door.

15. A modular charging station according to claim 1, wherein the first and second movable sub-chassis are mounted to a slidable track positioned along a floor of the main chassis body and aligned with an access door.

16. A modular charging station, comprising:

a main chassis body, comprising:

a first charging station interface positioned along an outer surface of the main chassis body;

a second charging station interface positioned along an outer surface of the main chassis body; and

an input power terminal;

a first charging station positioned on a first movable sub-chassis disposed within the main chassis body and electrically connected to the first charging station interface;

a second charging station positioned on a second movable sub-chassis disposed within the main chassis body and electrically connected to the second charging station interface;

a battery bank positioned on a third movable sub-chassis disposed within the main chassis body and electrically connected to the input power terminal and the first and second charging stations;

a renewable power generation system connected to an outside surface of the main chassis body and electrically connected to the battery bank via the input power terminal; and

a power management system disposed within the main chassis body and electrically connected to the first and second charging stations and the battery bank.

17. A modular charging station according to claim 16, wherein:
the first charging station comprises one of a Level 2 or Level 3 charging station; and
the second charging station comprises a Level 1 charging station.

18. A modular charging station according to claim 16, wherein the renewable power generation system comprises at least one of a solar array or a wind turbine.

19. A modular charging station according to claim 16, wherein the input power terminal is further configured to be connected to an electrical source connected to an electric power grid.

20. A modular charging station according to claim 16, wherein:
the main chassis body further comprises:
a first set of rails positioned along a floor of the main chassis body and aligned with a first access door; and
a second set of rails positioned along a floor of the main chassis body and aligned with a second access door;
the first movable sub-chassis comprises a set of wheels arranged to engage the first set of rails; and
the second movable sub-chassis comprises a second set of wheels arranged to engage the second set of rails.