CLAIMS

1. A method of operating a multiple energy source of a transport refrigeration unit comprising:

determining the transport refrigeration unit is at idle, wherein the transport regriferation unit is adapted to be located at end of a truck, trailer, or cargo container, and the transport refrigeration unit comprises a condenser fan motor; a battery charging circuit; and a condenser fan;

electrically switching a condenser fan motor from receiving electrical power to a battery charging circuit;

driving the condenser fan motor via wind blowing through a condenser fan; and

generating electrical power by the condenser fan motor to charge a battery of the transport refrigeration unit via the battery charging circuit.

2. The method set forth in claim 1, wherein a controller is configured to determine when the transport refrigeration unit is at idle.

3. The method set forth in claim 2, wherein an electrical relay is controlled by the controller to electrically switch the condenser fan motor.

4. The method set forth in claim 1, further comprising:

selecting a wind energy source selection indicative of the wind energy source, and amongst a plurality of energy source selections to charge the battery prior to electrically switching the condenser fan motor.

5. The method set forth in claim 4, wherein the plurality of energy source selections includes a combustion engine generator selection indicative of a combustion engine generator for charging the battery.

6. The method set forth in claim 5, wherein the controller is configured to receive a fuel level signal from a fuel level sensor to at least in-part determine selection between the combustion engine generator and the wind energy source.

7. The method set forth in claim 6, wherein the controller is configured not to select the combustion engine generator if the fuel level is below a pre-programmed, minimum, threshold.

8. The method set forth in claim 4, wherein the plurality of energy source selections includes an external power source selection indicative of an external power source for charging the battery.

9. The method set forth in claim 4, wherein the plurality of energy source selections includes a solar energy source selection indicative of a solar energy source for charging the battery.

10. The method set forth in claim 4, wherein the controller is configured to receive a battery charge level signal from a battery charge sensor to at least in-part determine the selection of the plurality of energy source selection.

11. The method set forth in claim 10, wherein the energy source selection module is configured not to select the combustion engine generator selection if the battery is fully charged.

12. The method set forth in claim 4, wherein the controller is configured to receive a motion signal indicative of condenser fan motion to at least in-part determine a selection of the plurality of energy source selections.

13. The method set forth in claim 4, further comprising:

selecting one of the plurality of energy source selections via a manual selection switch.

14. The method set forth in claim 13, wherein the manual selection switch includes an automatic selection position enabling the controller to select one of the plurality of energy source selections base at least in-part on sensory input.

15. A method of operating a multiple energy source of a transport refrigeration unit comprising:

determining a combustion engine generator is available to charge a battery by a controller;

determining the transport refrigeration unit is at idle by the controller when the combustion engine generator is not available, wherein the transport refrigeration unit is adapted to be located at the end of a truck, trailer, or cargo container, and the transport refrigeration unit comprises a condenser fan motor; a battery charging circuit; and a condenser fan;

electrically switching the condenser fan motor from receiving electrical power to the battery charging circuit when the transport refrigeration unit is at idle by the controller;

driving the condenser fan motor via wind blowing through a condenser fan; and

generating electrical power by the condenser fan motor to charge the battery of the transport refrigeration unit via the battery charging circuit.