WHAT IS CLAIMED IS:

1. A method comprising:

determining (214), by a first computing device powered by a rechargeable battery (452) and a non-rechargeable battery (454), whether to change operation of the first computing device from a first operating state to a second operating state based on one or more of a state of the rechargeable battery, a state of the non-rechargeable battery, or a state of a communication mode of the first computing device; and

in response to determining that operation of the first computing device should change to the second operating state, increasing, by the first computing device, an interval between communications with one or more second computing devices using the communication mode;

wherein determining whether to change the operation of the first computing device from the first operating state to the second operating state is based on a first number of the rechargeable battery, the non-rechargeable battery, and the communication mode of the first computing device that are in a normal state, a second number of the rechargeable battery, the non-rechargeable battery, and the communication mode of the first computing device that are in a first degraded state, and a third number of the rechargeable battery, the non-rechargeable battery, and the communication mode of the first computing device that are in a second degraded state.

2. The method of claim 1, further comprising:

determining, by the first computing device, whether to change operation of the first computing device from the second operating state to the first operating state based on one or more of a state of the rechargeable battery, a state of the non-rechargeable battery, or a state of the communication mode of the first computing device; and

in response to determining that operation of the first computing device should change to the first operating state, decreasing, by the first computing

device, the interval between communications with the one or more second computing devices using the communication mode.

3. The method of claim 1 or 2, further comprising:

determining, by the first computing device, whether to change operation of the first computing device from the second operating state to a third operating state based on one or more of a state of the rechargeable battery, a state of the non-rechargeable battery, or a state of the communication mode of the first computing device; and

in response to determining that operation of the first computing device should change to the third operating state, ceasing, by the first computing device, communications with the one or more second computing devices using the communication mode.

4. The method of any preceding claim, wherein:

a state of the rechargeable battery includes an amount of energy remaining in the rechargeable battery; and

a state of the non-rechargeable battery includes an amount of energy remaining in the non-rechargeable battery.

5. The method of any preceding claim, wherein a state of the non-rechargeable battery includes a total amount of time within a first period of time that the first computing device consumed energy from the non-rechargeable battery.

6. The method of any preceding claim, wherein a state of the communication mode is based on a respective state of a plurality of communication links using the communication mode.

7. The method of any preceding claim, wherein a state of the communication mode includes a number of computing devices communicating with the first computing device using the communication mode.

8. The method of any preceding claim, wherein determining whether to change operation of the first computing device from the first operating state to the second operating state comprises determining whether one or more of the state of the rechargeable battery, the state of the non-rechargeable battery, or the state of the communication mode of the first computing device is a degraded state.

9. The method of any preceding claim, wherein:

the first degraded state for the rechargeable battery comprises one or more energy sources being unavailable for longer than a first amount of time during a first time period and the rechargeable battery being below a threshold charge amount;

the second degraded state for the rechargeable better comprises the one or more energy sources being unavailable for longer than the first amount of time during the first time period and the rechargeable battery being depleted;

the first degraded state for the non-rechargeable battery comprises a second amount of time energy is consumed from the non-rechargeable battery during a second time period being longer than a first threshold amount of time;

the second degraded state for the non-rechargeable battery comprises the second amount of time energy being longer than a second threshold amount of time;

the first degraded state of the communication mode comprises a fourth number of link quality or reliability values for one or more communication links being below a threshold value for a normal state and above a threshold value for a first level of degraded state; and

the second degraded state of the communication mode comprises a fifth number of the link quality or reliability values for the one or more communication links being below the threshold value for the first level of degraded state or a sixth number of the link quality

or reliability values for the one or more communication links being below a threshold value for a second level of degraded state.

10. The method of any preceding claim, wherein the communications with the one or more second computing devices are performed via one or more cellular connections or one or more local area network (LAN) connections.

11. One or more computer-readable media storing instructions which, when executed by one or more processors of a first node powered by a primary power cell and a secondary power cell, cause the one or more processors to perform the method of any one of claims 1 to 10.

12. A network device comprising:

a power system (450) comprising a rechargeable battery (452) and a non-rechargeable battery (454);

a processor (420); and

a memory (440) storing executable instructions that when executed by the processor cause the network device to perform the method of any of claims 1to 10.

13. The network device of claim 12, wherein the power system further comprises a solar panel, wherein the state of the power system includes one or more of a state of the rechargeable battery, a state of the non-rechargeable battery, or a state of the solar panel.

14. The network device of claim 13, wherein the state of the solar panel includes whether the solar panel is supplying energy to the network device.

15. The network device of claim 13 or 14, wherein the state of the solar panel includes an amount of time that the solar panel has been inactive.