CLAIMS

What is claimed:

1. A method, comprising:

obtaining utility consumption data associated with i) a device at a service site and ii) a utility available for consumption at the service site;

determining, based at least in part on a utility restriction schedule associated with the service site, that the utility consumption data indicates a violation of the utility restriction schedule;

determining a number of previous violations associated with the service site;

determining, based at least in part on at least one of the number of previous violations, a frequency of previous violations, or a magnitude of previous violations exceeding a threshold value, to restrict access to the utility at the service site;

generating a notification to a user associated with the service site indicating that access to the utility has been restricted; and

transmitting the notification to a user device associated with the user.

2. The method of claim 1, further comprising generating a plurality of utility restriction schedules associated with a plurality of service sites, wherein each utility restriction schedule of the plurality of utility restriction schedules is associated with a different period of time.

3. The method of claim 1, further comprising disaggregating the utility consumption data to obtain a representation of a rate of utility consumption corresponding to a determined usage of the utility.

4. The method of claim 3, wherein the determined usage includes outdoor irrigation, and the violation of the utility restriction schedule is determined in response to the determined usage including outdoor irrigation.

5. The method of claim 3, wherein the determined usage includes operation of an electrical appliance, and the violation of the utility restriction schedule is determined in response to the determined usage including usage of the electrical appliance.

6. The method of claim 3, wherein restricting access to the utility at the service site comprises reducing a flow rate of the utility at the service site such that the utility is unable to be utilized for outdoor irrigation.

7. The method of claim 1, wherein the notification comprises a first notification, the method further comprising:

generating a second notification indicating the violation of the utility restriction schedule and indicating that access to the utility has been restricted; and

transmitting the second notification to a utility provider.

8. The method of claim 1, further comprising:

monitoring consumption of the utility at a first sampling rate prior to determining violation of the utility restriction schedule; and

monitoring consumption of the utility at a second sampling rate in response to determining violation of the utility restriction schedule, the second sampling rate being greater than the first sampling rate.

9. The method of claim 1, wherein the obtaining, generating, and transmitting are performed at:

a server at a central office;

a data processing component of the device at the service site; or

a node within a mesh network of smart utility meters.

10. The method of claim 1, wherein the obtaining, generating, and transmitting are performed at a data processing component of the device at the service site, the device comprising a smart utility meter.

11. A system, comprising:

a smart utility meter including:

a processor and memory configured with instructions, which when executed perform acts comprising:

obtaining data associated with a service site and a utility, the data associated with the service site and the utility comprising:

utility consumption data; and

timing data indicating duration of a plurality of time intervals between switch closures of the smart utility meter, wherein each switch closure indicates measurement of a unit of the utility;

disaggregating the data associated with the service site and the utility to obtain a representation of a rate of utility consumption corresponding to a determined usage of the utility;

determining, based at least in part on a utility restriction schedule associated with the service site, that the determined usage indicates a violation of the utility restriction schedule;

determining, based at least in part on the violation of the utility restriction schedule, to restrict access to the utility at the service site;

generating a notification to a user associated with the service site indicating that access to the utility has been restricted; and

transmitting the notification to a user device associated with the user.

12. The system of claim 11, wherein the transmitting the notification to the user device comprises transmitting the notification to an in-home device.

13. The system of claim 11, wherein the acts further comprise receiving the utility restriction schedule from a utility provider, wherein the utility restriction schedule is associated with a geographical area in which the smart utility meter is located.

14. The system of claim 11, wherein the determined usage includes outdoor irrigation, and the violation of the utility restriction schedule is determined in response to the determined usage including outdoor irrigation.

15. The system of claim 11, wherein the determined usage includes operation of an electrical appliance, and the violation of the utility restriction schedule is determined in response to the determined usage including usage of the electrical appliance.

16. The system of claim 11, wherein the acts further comprise:

monitoring consumption of the utility at a first sampling rate prior to determining violation of the utility restriction schedule; and

monitoring consumption of the utility at a second sampling rate in response to determining violation of the utility restriction schedule, the second sampling rate being greater than the first sampling rate.

17. One or more non-transitory computer-readable media storing computer-executable instructions that, when executed by one or more processors, configure a computing device to perform acts comprising:

obtaining utility consumption data associated with i) a device at a service site and ii) a utility available for consumption at the service site;

determining, based at least in part on a utility restriction schedule associated with the service site, that the utility consumption data indicates a violation of the utility restriction schedule;

determining a number of previous violations associated with the service site;

determining, based at least in part on at least one of the number of previous violations, a frequency of previous violations, or a magnitude of previous violations exceeding a threshold value, to restrict access to the utility at the service site;

generating a notification to a user associated with the service site indicating that access to the utility has been restricted; and

transmitting the notification to a user device associated with the user.

18. One or more non-transitory computer-readable media as recited in claim 17, wherein the acts further comprise generating a plurality of utility restriction schedules associated with a plurality of service sites, wherein each utility restriction schedule of the plurality of utility restriction schedules is associated with a different period of time.

19. One or more non-transitory computer-readable media as recited in claim 17, wherein the acts further comprise disaggregating the utility consumption data to obtain a representation of a rate of utility consumption corresponding to a determined usage of the utility.

20. One or more non-transitory computer-readable media as recited in claim 19, wherein the determined usage includes outdoor irrigation, and the violation of the utility restriction schedule is determined in response to the determined usage including outdoor irrigation.