# CLAIMS

1. A network entity comprising:

at least one memory; and

at least one processor coupled with the at least one memory and operable to cause the network entity to:

receive a first request for exposure of energy consumption related information including:

an energy consumption event identifier; and

event filter information;

select one of a Unified Data Management (UDM) function or a Network Repository Function (NRF) based on one or more of the energy consumption event identifier or the event filter information;

transmit to the selected UDM function or NRF function a second request to identify an energy consumption collecting Network Function (NF);

receive a first response including an identifier of an energy consumption collecting NF; and

transmit a third request to the energy consumption collecting NF to subscribe for monitoring event notifications, the third request including at least one of the energy consumption event identifier or the event filter information.

2. The network entity of claim 1, wherein the energy consumption event identifier has a type identifying at least one of:

energy consumption status report;

energy consumption prediction report;

energy policy status;

energy credit limit status;

network performance information for a currently activated energy state; or

energy efficiency information.

3. The network entity of claim 1 or 2, wherein the event filter information defines at least one of:

a user equipment (UE)-related filter per UE-level, per Protocol Data Unit (PDU) level, or per Quality of Service (QoS) flow level; or

a service-related filter per network slice level, per Session level, or per Application Function (AF) level.

4. The network entity of claim 3, wherein the event filter information or other information within the first request, further defines at least one of a per Access Network (AN) level filter, a core network (CN) level filter, or a per Access type level filter.

5. The network entity of claim 3 or 4, wherein the at least one processor is operable to cause the network entity to select a UDM if the event filter information defines a UE-related filter, the selected UDM serving a UE associated with the UE-related filter.

6. The network entity of claim 3 or 4, wherein the at least one processor is operable to cause the network entity to select a NRF function if the event filter information defines a service-related filter, and to include in the second request a service identifier (ID).

7. The network entity of any preceding claim, wherein the at least one processor is operable to cause the network entity to operate as a Network Exposure Function (NEF) within a core network (CN).

8. The network entity of any preceding claim, wherein the at least one processor is operable to cause the network entity to:

receive a notification of an energy consumption event; and

transmit the received notification.

9. The network entity of claim 1, wherein the first request is received on a first control plane interface, the second request is transmitted on a second control plane interface, and the third request is transmitted on a third control plane interface.

10. The network entity of claim 9, wherein the first control plane interface comprises a control plane interface to an Application Function (AF).

11. A network entity comprising:

at least one memory; and

at least one processor coupled with the at least one memory and operable to cause the network entity to:

collect energy consumption related information;

receive a request to subscribe for monitoring event notifications associated with the collected energy consumption related information, the request including at least one of an energy consumption event identifier or event filter information;

determine and store at least one monitoring event trigger based on one or more of the energy consumption event identifier or the event filter information;

determine occurrence of a monitoring event trigger in the collected energy consumption related information; and

transmit a notification of occurrence of the monitoring event trigger.

12. The network entity of claim 11, wherein the collected energy consumption related information is one of user equipment (UE)-related or service-related energy consumption related information.

13. The network entity of claim 12, wherein the at least one processor is operable to cause the network entity to operate as one of:

an Energy Consumption Function;

a Charging Function;

a Policy Control Function; or

a Network Data Analytics Function.

14. The network entity of any one of claims 11 to 13, wherein the request is received via a control plane interface, and the control plane interface comprises an interface towards a second network entity operating as a Network Exposure Function (NEF).

15. The network entity of claim 14, wherein the at least one processor is operable to cause the network entity to send the notification over the control plane interface to a sender of the request, or over a second control plane interface to an Application Function (AF).

16. A method performed by a network entity, the method comprising:

receiving a first request for exposure of energy consumption related information including:

an energy consumption event identifier; and

event filter information;

selecting one of a Unified Data Management (UDM) function or a Network Repository Function (NRF) based on one or more of the energy consumption event identifier or the event filter information;

transmitting to the selected UDM function or NRF function a second request to identify an energy consumption collecting Network Function (NF);

receiving a first response including an identifier of an energy consumption collecting NF; and

transmitting a third request to the energy consumption collecting NF to subscribe for monitoring events, the third request including at least one of the energy consumption event identifier or the event filter information.

17. The method of claim 16, wherein the energy consumption event identifier has a type identifying at least one of:

energy consumption status report;

energy consumption prediction report;

energy policy status;

energy credit limit status;

network performance information for a currently activated energy state; or

energy efficiency information.

18. A method performed by a network entity, the method comprising:
collecting energy consumption related information;
receiving a request to subscribe for monitoring event notifications associated with the collected energy consumption related information, the request including at least one of an energy consumption event identifier or event filter information;
determining and storing at least one monitoring event trigger based on one or more of the energy consumption event identifier or the event filter information;
determining occurrence of a monitoring event trigger in the collected energy consumption related information; and
transmitting a notification of occurrence of the monitoring event trigger.

19. The method of claim 18, wherein the collected energy consumption related information is one of user equipment (UE)-related or service-related energy consumption related information.

20. The method of claim 18, further comprising causing the network entity to operate as at least one of:

an Energy Consumption Function;

a Charging Function;

a Policy Control Function; or

a Network Data Analytics Function.