CLAIMS

1. A method for information indication, performed by a network device, the method comprising:

sending an indication to a user equipment (UE), the indication for indicating the UE not to perform a cell search under a given time condition.

2. The method of claim 1, wherein indicating the UE not to perform the cell search under the given time condition comprises at least one of:

indicating the UE not to monitor a paging message under the given time condition;

indicating the UE not to perform a tracking area update (TAU) under the given time condition; or

indicating the UE not to perform the cell search and to be in a dormant state, under the given time condition.

3. The method of claim 2, wherein indicating the UE not to perform the cell search under the given time condition comprises:

indicating the UE not to perform the cell search within a set time duration or before a set timing;

the set time duration or the set timing is determined by at least one of a core network device and/or an access network device.

4. The method of claim 3, wherein indicating the UE not to monitor the paging message under the given time condition comprises:

in response to a discontinuous reception (DRX) being configured for the UE, indicating the UE not to monitor the paging message at one or more paging occasions (POs) within a DRX cycle; or

in response to an extended DRX (eDRX) being configured for the UE, indicating the UE not to monitor the paging message within one or more paging time windows (PTWs) or indicating the UE not to monitor the paging message at one or more POs within at least one eDRX cycle within at least one PTW.

5. The method of claim 3, wherein indicating the UE not to monitor the paging message under the given time condition comprises:

in response to a power saving mode (PSM) being configured for the UE, indicating the UE not to monitor the paging message during an operation duration of an activation timer or indicating the UE not to monitor the paging message at one or more paging occasions (POs) within at least one extended discontinuous reception (eDRX) cycle during the operation duration of the activation timer.

6. The method of claim 2, wherein indicating the UE not to perform the TAU under the given time condition comprises:

indicating the UE not to perform the TAU after a TAU timer expires.

7. The method of any one of claims 1 to 6, wherein sending the indication to the UE comprises:

sending the indication through a radio resource control (RRC) message ~~during a process of~~when the UE ~~entering~~ enters an RRC non-connected state from an RRC connected state.

8. The method of any one of claims 1 to 6, wherein sending the indication to the UE comprises:

sending the indication while configuring at least one of an extended discontinuous reception (eDRX) parameter ~~and/~~or a power saving mode (PSM) parameter for the UE.

9. The method of claim 8, wherein sending the indication while configuring at least one of the eDRX parameter ~~and/~~or the PSM parameter for the UE comprises:

sending the indication ~~during a process of~~when the UE ~~performing~~ performs at least one of a tracking area update (TAU) ~~and/~~or attaching.

10. The method of claim 3, wherein when the ~~set~~ time duration or the ~~set~~ timing is determined by the access network device, the UE is indicated by the access network device not to perform the cell search within the ~~set~~ time duration or before the ~~set~~ timing.

11. The method of claim 10, wherein indicating the UE by the access network device not to perform the cell search within the ~~set~~ time duration or before the ~~set~~ timing comprises:

predicting by the access network device that a timing when a current network is unable to provide network coverage for the UE is T1 and a next timing when the current network is able

to provide network coverage for the UE is T2, and indicating the UE not to perform the cell search ~~under~~ within a time ~~condition~~ duration of T2-T1.

12. The method of claim ~~10~~3, wherein when the ~~set~~ time duration or the ~~set~~ timing is determined by the core network device, the UE is indicated by the core network device not to perform the cell search when the UE enters a radio resource control (RRC) non-connected state within the ~~set~~ time duration or before the ~~set~~ timing.

13. The method of claim 12, wherein indicating the UE by the core network device not to perform the cell search when the UE enters the RRC non-connected state within the ~~set~~ time duration or before the ~~set~~ timing comprises:

indicating the UE by the core network device not to perform the cell search within a time duration of T5-T4 when the core network device indicates the UE to enter the RRC non-connected state before T4, wherein ~~a timing when the core network device sends the indication is T3,~~ a stop timing for providing network coverage for the UE is T4, and a next timing for providing network coverage is T5.

14. A method for information indication, performed by a user equipment (UE), the method comprising:

receiving an indication sent by a network device, and determining not to perform a cell search under a given time condition.

15. The method of claim 14, wherein determining not to perform the cell search under the given time condition comprises at least one of:

determining not to monitor a paging message under the given time condition;

determining not to perform a tracking area update (TAU) under the given time condition; or

determining not to perform the cell search and to be in a dormant state, under the given time condition.

16. The method of claim 15, wherein the given time condition comprises within a ~~set~~ time duration or before a ~~set~~ timing;

the ~~set~~ time duration or the ~~set~~ timing is determined by at least one of a core network

device ~~and/~~or an access network device.

17. The method of claim 16, wherein determining not to monitor the paging message under the given time condition comprises at least one of:

when it is determined that the UE is configured with a discontinuous reception (DRX), determining not to monitor the paging message at one or more paging occasions (POs) within a DRX cycle;

when it is determined that the UE is configured with an extended DRX (eDRX), determining not to monitor the paging message within one or more paging time windows (PTWs) or determining not to monitor the paging message at one or more POs within at least one eDRX cycle within at least one PTW;~~.~~ or

~~18. The method of claim 16, wherein not to monitor the paging message under the given time condition comprises:~~

when it is determined that the UE is configured with a power saving mode (PSM), determining not to monitor the paging message during an operation duration of an activation timer or determining ~~indicating~~ the UE not to monitor the paging message at one or more paging occasions (POs) within at least one extended discontinuous reception (eDRX) cycle during the operation duration of the activation timer.

~~19. The method of claim 15, wherein indicating the UE not to perform the TAU under the given time condition comprises:~~

~~not to perform the TAU after a TAU timer expires.~~

~~20. The method of claim 14, wherein receiving the indication sent by the network device comprises:~~

~~receiving the indication sent by an access network device through a radio resource control (RRC) message during a process of the UE entering an RRC non-connected state from an RRC connected state.~~

~~21. The method of claim 14, wherein receiving the indication sent by the network device comprises:~~

~~receiving the indication sent by a core network device during a process of the UE~~

~~performing a tracking area update (TAU) and/or attaching.~~

~~22~~18. The method of any one of claims 14 to 17, further comprising:

determining to enter a radio resource control (RRC) non-connected state and not to perform the cell search under the given time condition, according to the indication.

19. The method of claim 16, further comprising:

indicating not to perform the cell search in a time condition of T2-T1, wherein a timing when a current network is unable to provide network coverage for the UE is T1 and a next timing when the current network is able to provide network coverage for the UE is T2.

~~23. An apparatus for energy saving indication, comprising:~~

~~a sending unit, configured to send indication to a user equipment (UE); the indication for indicating the UE not to perform a cell search under a given time condition.~~

~~24. The apparatus of claim 23, wherein the indication is used for at least one of:~~

~~indicating the UE not to monitor a paging message under the given time condition;~~

~~indicating the UE not to perform a tracking area update (TAU) under the given time condition; or~~

~~indicating the UE not to perform the cell search and to be in a dormant state, under the given time condition.~~

~~25. The apparatus of claim 23, wherein the indication is further used for:~~

~~in response to a discontinuous reception (DRX) being configured for the UE, indicating the UE not to monitor the paging message at one or more paging occasions (POs) within a DRX cycle;~~

~~in response to an extended DRX (eDRX) being configured for the UE, indicating the UE not to monitor the paging message within one or more paging time windows (PTWs) or indicating the UE not to monitor the paging message at one or more POs within at least one eDRX cycle within at least one PTW.~~

~~26. The apparatus of claim 23, wherein the indication is further used for:~~

~~in response to a power saving mode (PSM) being configured for the UE, indicating the~~

~~UE not to monitor the paging message during an operation duration of an activation timer or indicating the UE not to monitor the paging message at one or more paging occasions (POs) within at least one extended discontinuous reception (eDRX) cycle during the operation duration of the activation timer.~~

~~27. An apparatus for information indication, comprising:~~

~~a receiving unit, configured to receive indication sent by a network device; and~~

~~a determining unit, configured to determine not to perform a cell search under a given time condition.~~

~~28. The apparatus of claim 27, wherein not to perform the cell search under the given time condition comprises at least one of:~~

~~not to monitor a paging message under the given time condition;~~

~~not to perform a tracking area update (TAU) under the given time condition; or~~

~~not to perform the cell search and to be in a dormant state, under the given time condition.~~

~~29. The apparatus of claim 27, wherein the determining unit is further configured to:~~

~~determine to enter a radio resource control (RRC) non-connected state and not to perform the cell search under the given time condition, according to the indication.~~

~~30~~20. A network device, comprising:

a processor~~;~~,

a transceiver~~;~~, and

a memory storing~~, and~~ an executable program ~~stored on the memory and executable by the processor, wherein when the processor executes the executable program, the processor performs steps of the method for information indication of any of claims 1 to 13.~~,

wherein the processor is configured to perform the method as claimed in any one of claims 1 to 13.

~~31~~21. A user equipment, comprising:

a processor~~;~~,

a transceiver~~;~~, and

a memory storing~~, and~~ an executable program ~~stored on the memory and executable by~~

~~the processor, wherein when the processor executes the executable program, the processor performs steps of the method for information indication of any of claims 14 to 22.~~,

wherein the processor is configured to perform the method as claimed in any one of claims 14 to 19.

~~32~~22. A storage medium having stored an executable program thereon, wherein when the executable program is executed by a processor of a communication device, steps of the method for information indication of any of claims 1 to ~~22~~ 19 are realized.