CLAIMS

What is claimed is:

1. A method implemented in a wireless transmit/receive unit (WTRU), the method comprising:

receiving radio resource control (RRC) configuration information indicating (1) a downlink control information (DCI)-based indication of hybrid automatic repeat request (HARQ) state to override a RRC configuration and (2) a first HARQ state of the RRC configuration associated with a HARQ process, wherein the first HARQ state indicates that downlink HARQ feedback is enabled for the HARQ process;

performing a first discontinuous reception (DRX) operation based on downlink HARQ feedback being enabled for the HARQ process;

receiving a DCI;

determining that the DCI indicates a second HARQ state associated with the HARQ process, based on the configuration information indicating that DCI-based indication of HARQ state to override the RRC configuration is enabled, wherein the second HARQ state indicates that downlink HARQ feedback is disabled for the HARQ process;

overriding the RRC configuration for the HARQ process by disabling downlink HARQ feedback for the HARQ process; and

performing a second DRX operation based on downlink HARQ feedback being disabled for the HARQ process .

2. The method of claim 1, wherein performing the second DRX operation comprises entering in DRX active time.

3. The method of claim 1, wherein performing the second DRX operation comprises not refraining from monitoring a physical downlink control channel during a base station to WTRU round trip time.

4. The method of claim 1, wherein DRX is performed based on downlink HARQ feedback being disabled until downlink HARQ feedback is indicated as being enabled in a subsequent DCI.

5. The method of claim 1, wherein DRX is performed with disabled downlink HARQ for a period of time after which DRX is performed with enabled downlink HARQ feedback .

6. The method of claim 1, wherein downlink HARQ feedback being disabled is applicable any of (i) per serving cell, (ii) per HARQ process and (iii) for all HARQ processes of the WTRU.

7. A wireless transmit/receive unit (WTRU) comprising circuitry, including a transmitter, a receiver, a processor, and a memory, configured to:

receive radio resource control (RRC) configuration information indicating (1) a downlink control information (DCI)-based indication of hybrid automatic repeat request (HARQ) state to override a RRC configuration and (2) a first HARQ state of the RRC configuration associated with a HARQ process, wherein the first HARQ state indicates that downlink HARQ feedback is enabled for the HARQ process;;

perform a first discontinuous reception (DRX) operation based on downlink HARQ feedback being enabled for the HARQ process;

receive a DCI;

determine that the DCI indicates a second HARQ state associated with the HARQ process, based on the configuration information indicating that DCI-based indication of HARQ state to override the RRC configuration is enabled, wherein the second HARQ state indicates that downlink HARQ feedback is disabled for the HARQ process;

override the RRC configuration for the HARQ process by disabling downlink HARQ feedback for the HARQ process; and

perform a second DRX operation based on downlink HARQ feedback being disabled for the HARQ process.

8. The WTRU of claim 7, wherein being configured to perform the second DRX operation comprises being configured to enter in DRX active time.

9. The WTRU of claim 7, wherein being configured to perform the second DRX operation comprises being configured to not refrain from monitoring a physical downlink control channel during a base station to WTRU round trip time.

10. The WTRU of claim 7, wherein DRX is performed based on downlink HARQ feedback being disabled until downlink HARQ feedback is indicated as being enabled in a subsequent DCI.

11. The WTRU of claim 7, wherein DRX is performed with disabled downlink HARQ for a period of time after which DRX is performed with enabled downlink HARQ feedback .

12. The WTRU of claim 7, wherein downlink HARQ feedback being disabled is applicable any of (i) per serving cell, (ii) per HARQ process and (iii) for all HARQ processes of the WTRU.