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Dormancy indications for multiple network entities

Abstract

Various aspects of the present disclosure generally relate to wireless communication. In some aspects, a user equipment (UE) may receive a first dormancy indication and a second dormancy indication. The UE may communicate in a wireless network based at least in part on associating the first dormancy indication with a first dormancy state of a first network entity in the wireless network and associating the second dormancy indication with a second dormancy state of a second network entity in the wireless network. Numerous other aspects are described.

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Background/Summary

FIELD OF THE DISCLOSURE

(1) Aspects of the present disclosure generally relate to wireless communication and to techniques and apparatuses for dormancy indications for multiple network entities.

BACKGROUND

(2) Wireless communication systems are widely deployed to provide various telecommunication services such as telephony, video, data, messaging, and broadcasts. Typical wireless communication systems may employ multiple-access technologies capable of supporting communication with multiple users by sharing available system resources (e.g., bandwidth, transmit power, or the like). Examples of such multiple-access technologies include code division multiple access (CDMA) systems, time division multiple access (TDMA) systems, frequency division multiple access (FDMA) systems, orthogonal frequency division multiple access (OFDMA) systems, single-carrier frequency division multiple access (SC-FDMA) systems, time division synchronous code division multiple access (TD-SCDMA) systems, and Long Term Evolution (LTE). LTE/LTE-Advanced is a set of enhancements to the Universal Mobile Telecommunications System (UMTS) mobile standard promulgated by the Third Generation Partnership Project (3GPP).

(3) A wireless network may include one or more base stations that support communication for a user equipment (UE) or multiple UEs. A UE may communicate with a base station via downlink communications and uplink communications. “Downlink” (or “DL”) refers to a communication link from the base station to the UE, and “uplink” (or “UL”) refers to a communication link from

the UE to the base station.

(4) The above multiple access technologies have been adopted in various telecommunication standards to provide a common protocol that enables different UEs to communicate on a municipal, national, regional, and/or global level. New Radio (NR), which may be referred to as 5G, is a set of enhancements to the LTE mobile standard promulgated by the 3GPP. NR is designed to better support mobile broadband internet access by improving spectral efficiency, lowering costs, improving services, making use of new spectrum, and better integrating with other open standards using orthogonal frequency division multiplexing (OFDM) with a cyclic prefix (CP) (CP-OFDM) on the downlink, using CP-OFDM and/or single-carrier frequency division multiplexing (SC-FDM) (also known as discrete Fourier transform spread OFDM (DFT-s-OFDM)) on the uplink, as well as supporting beamforming, multiple-input multiple-output (MIMO) antenna technology, and carrier aggregation. As the demand for mobile broadband access continues to increase, further improvements in LTE, NR, and other radio access technologies remain useful.

SUMMARY

(5) Some aspects described herein relate to a method of wireless communication performed by a user equipment (UE). The method may include receiving a first dormancy indication and a second dormancy indication. The method may include communicating in a wireless network based at least in part on associating the first dormancy indication with a first dormancy state of a first network entity in the wireless network and associating the second dormancy indication with a second dormancy state of a second network entity in the wireless network.

(6) Some aspects described herein relate to a method of wireless communication performed by a network entity. The method may include transmitting a first dormancy indication that indicates a first dormancy state of a first network entity in a wireless network and a second dormancy indication that indicates a second dormancy state of a second network entity in the wireless network, the first network entity and the second network entity associated with a UE. The method may include communicating in the wireless network based at least in part on the first dormancy state of the first network entity or the second dormancy state of the second network entity.

(7) Some aspects described herein relate to a UE for wireless communication. The UE may include a memory and one or more processors coupled to the memory. The one or more processors may be configured to receive a first dormancy indication and a second dormancy indication. The one or more processors may be configured to communicate in a wireless network based at least in part on associating the first dormancy indication with a first dormancy state of a first network entity in the wireless network and associating the second dormancy indication with a second dormancy state of a second network entity in the wireless network.

(8) Some aspects described herein relate to a network entity for wireless communication. The network entity may include a memory and one or more processors coupled to the memory. The one or more processors may be configured to transmit a first dormancy indication that indicates a first dormancy state of a first network entity in a wireless network and a second dormancy indication that indicates a second dormancy state of a second network entity in the wireless network, the first network entity and the second network entity associated with a UE. The one or more processors may be configured to communicate in the wireless network based at least in part on the first dormancy state of the first network entity or the second dormancy state of the second network entity.

(9) Some aspects described herein relate to a non-transitory computer-readable medium that stores a set of instructions for wireless communication by a UE. The set of instructions, when executed by one or more processors of the UE, may cause the UE to receive a first dormancy indication and a second dormancy indication. The set of instructions, when executed by one or more processors of the UE, may cause the UE to communicate in a wireless network based at least in part on associating the first dormancy indication with a first dormancy state of a first network entity in the wireless network and associating the second dormancy indication with a second dormancy state of

a second network entity in the wireless network.
(10) Some aspects described herein relate to a non-transitory computer-readable medium that stores a set of instructions for wireless communication by a network entity. The set of instructions, when executed by one or more processors of the network entity, may cause the network entity to transmit a first dormancy indication that indicates a first dormancy state of a first network entity in a wireless network and a second dormancy indication that indicates a second dormancy state of a second network entity in the wireless network, the first network entity and the second network entity associated with a UE. The set of instructions, when executed by one or more processors of the network entity, may cause the network entity to communicate in the wireless network based at least in part on the first dormancy state of the first network entity or the second dormancy state of the second network entity.
(11) Some aspects described herein relate to an apparatus for wireless communication. The apparatus may include means for receiving a first dormancy indication and a second dormancy indication. The apparatus may include means for communicating in a wireless network based at least in part on associating the first dormancy indication with a first dormancy state of a first network entity in the wireless network and associating the second dormancy indication with a second dormancy state of a second network entity in the wireless network.
(12) Some aspects described herein relate to an apparatus for wireless communication. The apparatus may include means for transmitting a first dormancy indication that indicates a first dormancy state of a first network entity in a wireless network and a second dormancy indication that indicates a second dormancy state of a second network entity in the wireless network, the first network entity and the second network entity associated with a UE. The apparatus may include means for communicating in the wireless network based at least in part on the first dormancy state of the first network entity or the second dormancy state of the second network entity.
(13) Aspects generally include a method, apparatus, system, computer program product, non-transitory computer-readable medium, user equipment, base station, wireless communication device, and/or processing system as substantially described herein with reference to and as illustrated by the drawings and specification.
(14) The foregoing has outlined rather broadly the features and technical advantages of examples according to the disclosure in order that the detailed description that follows may be better understood. Additional features and advantages will be described hereinafter. The conception and specific examples disclosed may be readily utilized as a basis for modifying or designing other structures for carrying out the same purposes of the present disclosure. Such equivalent constructions do not depart from the scope of the appended claims. Characteristics of the concepts disclosed herein, both their organization and method of operation, together with associated advantages, will be better understood from the following description when considered in connection with the accompanying figures. Each of the figures is provided for the purposes of illustration and description, and not as a definition of the limits of the claims.
(15) While aspects are described in the present disclosure by illustration to some examples, those skilled in the art will understand that such aspects may be implemented in many different arrangements and scenarios. Techniques described herein may be implemented using different platform types, devices, systems, shapes, sizes, and/or packaging arrangements. For example, some aspects may be implemented via integrated chip embodiments or other non-module-component based devices (e.g., end-user devices, vehicles, communication devices, computing devices, industrial equipment, retail/purchasing devices, medical devices, and/or artificial intelligence devices). Aspects may be implemented in chip-level components, modular components, non-modular components, non-chip-level components, device-level components, and/or system-level components. Devices incorporating described aspects and features may include additional components and features for implementation and practice of claimed and described aspects. For example, transmission and reception of wireless signals may include one or more components for

analog and digital purposes (e.g., hardware components including antennas, radio frequency (RF) chains, power amplifiers, modulators, buffers, processors, interleavers, adders, and/or summers). It is intended that aspects described herein may be practiced in a wide variety of devices, components, systems, distributed arrangements, and/or end-user devices of varying size, shape, and constitution.

Description

BRIEF DESCRIPTION OF THE DRAWINGS

(1) So that the above-recited features of the present disclosure can be understood in detail, a more particular description, briefly summarized above, may be had by reference to aspects, some of which are illustrated in the appended drawings. It is to be noted, however, that the appended drawings illustrate only certain typical aspects of this disclosure and are therefore not to be considered limiting of its scope, for the description may admit to other equally effective aspects. The same reference numbers in different drawings may identify the same or similar elements.

(2) FIG. **1** is a diagram illustrating an example of a wireless network, in accordance with the present disclosure.

(3) FIG. **2** is a diagram illustrating an example of a base station in communication with a UE in a wireless network, in accordance with the present disclosure.

(4) FIG. **3** illustrates an example logical architecture of a distributed radio access network (RAN), in accordance with the present disclosure.

(5) FIG. **4** is a diagram illustrating an example of multiple transmission reception point (TRP) communication, in accordance with the present disclosure.

(6) FIG. **5** is a diagram illustrating an example of a wireless communication process between a UE, a first network entity, and a second network entity in a wireless communication network, in accordance with the present disclosure.

(7) FIG. **6** is a diagram illustrating an example process performed, for example, by a UE, in accordance with the present disclosure.

(8) FIG. **7** is a diagram illustrating an example process performed, for example, by a network entity, in accordance with the present disclosure.

(9) FIG. **8** is a diagram of an example apparatus for wireless communication, in accordance with the present disclosure.

(10) FIG. **9** is a diagram of an example apparatus for wireless communication, in accordance with the present disclosure.

DETAILED DESCRIPTION

(11) Various aspects of the disclosure are described more fully hereinafter with reference to the accompanying drawings. This disclosure may, however, be embodied in many different forms and should not be construed as limited to any specific structure or function presented throughout this disclosure. Rather, these aspects are provided so that this disclosure will be thorough and complete, and will fully convey the scope of the disclosure to those skilled in the art. One skilled in the art should appreciate that the scope of the disclosure is intended to cover any aspect of the disclosure disclosed herein, whether implemented independently of or combined with any other aspect of the disclosure. For example, an apparatus may be implemented or a method may be practiced using any number of the aspects set forth herein. In addition, the scope of the disclosure is intended to cover such an apparatus or method which is practiced using other structure, functionality, or structure and functionality in addition to or other than the various aspects of the disclosure set forth herein. It should be understood that any aspect of the disclosure disclosed herein may be embodied by one or more elements of a claim.

(12) Several aspects of telecommunication systems will now be presented with reference to various

apparatuses and techniques. These apparatuses and techniques will be described in the following detailed description and illustrated in the accompanying drawings by various blocks, modules, components, circuits, steps, processes, algorithms, or the like (collectively referred to as "elements"). These elements may be implemented using hardware, software, or combinations thereof. Whether such elements are implemented as hardware or software depends upon the particular application and design constraints imposed on the overall system.

(13) While aspects may be described herein using terminology commonly associated with a 5G or New Radio (NR) radio access technology (RAT), aspects of the present disclosure can be applied to other RATs, such as a 3G RAT, a 4G RAT, and/or a RAT subsequent to 5G (e.g., 6G).

(14) FIG. **1** is a diagram illustrating an example of a wireless network **100**, in accordance with the present disclosure. The wireless network **100** may be or may include elements of a 5G (e.g., NR) network and/or a 4G (e.g., Long Term Evolution (LTE)) network, among other examples. The wireless network **100** may include one or more base stations **110** (shown as a BS **110***a*, a BS **110***b*, a BS **110***c*, and a BS **110***d*), a user equipment (UE) **120** or multiple UEs **120** (shown as a UE **120***a*, a UE **120***b*, a UE **120***c*, a UE **120***d*, and a UE **120***e*), and/or other network entities. A base station **110** is an entity that communicates with UEs **120**. A base station **110** (sometimes referred to as a BS) may include, for example, an NR base station, an LTE base station, a Node B, an eNB (e.g., in 4G), a gNB (e.g., in 5G), an access point, and/or a transmission reception point (TRP). Each base station **110** may provide communication coverage for a particular geographic area. In the Third Generation Partnership Project (3GPP), the term "cell" can refer to a coverage area of a base station **110** and/or a base station subsystem serving this coverage area, depending on the context in which the term is used.

(15) A base station **110** may provide communication coverage for a macro cell, a pico cell, a femto cell, and/or another type of cell. A macro cell may cover a relatively large geographic area (e.g., several kilometers in radius) and may allow unrestricted access by UEs **120** with service subscriptions. A pico cell may cover a relatively small geographic area and may allow unrestricted access by UEs **120** with service subscription. A femto cell may cover a relatively small geographic area (e.g., a home) and may allow restricted access by UEs **120** having association with the femto cell (e.g., UEs **120** in a closed subscriber group (CSG)). A base station **110** for a macro cell may be referred to as a macro base station. A base station **110** for a pico cell may be referred to as a pico base station. A base station **110** for a femto cell may be referred to as a femto base station or an in-home base station. In the example shown in FIG. **1**, the BS **110***a* may be a macro base station for a macro cell **102***a*, the BS **110***b* may be a pico base station for a pico cell **102***b*, and the BS **110***c* may be a femto base station for a femto cell **102***c*. A base station may support one or multiple (e.g., three) cells.

(16) In some examples, a cell may not necessarily be stationary, and the geographic area of the cell may move according to the location of a base station **110** that is mobile (e.g., a mobile base station). In some examples, the base stations **110** may be interconnected to one another and/or to one or more other base stations **110** or network nodes (not shown) in the wireless network **100** through various types of backhaul interfaces, such as a direct physical connection or a virtual network, using any suitable transport network.

(17) In some aspects, the term "base station" (e.g., the base station **110**) or "network node" or "network entity" may refer to an aggregated base station, a disaggregated base station (e.g., described in connection with FIG. **9**), an integrated access and backhaul (IAB) node, a relay node, and/or one or more components thereof. For example, in some aspects, "base station," "network node," or "network entity" may refer to a central unit (CU), a distributed unit (DU), a radio unit (RU), a Near-Real Time (Near-RT) RAN Intelligent Controller (RIC), or a Non-Real Time (Non-RT) RIC, or a combination thereof. In some aspects, the term "base station," "network node," or "network entity" may refer to one device configured to perform one or more functions, such as those described herein in connection with the base station **110**. In some aspects, the term "base

station," "network node," or "network entity" may refer to a plurality of devices configured to perform the one or more functions. For example, in some distributed systems, each of a number of different devices (which may be located in the same geographic location or in different geographic locations) may be configured to perform at least a portion of a function, or to duplicate performance of at least a portion of the function, and the term "base station," "network node," or "network entity" may refer to any one or more of those different devices. In some aspects, the term "base station," "network node," or "network entity" may refer to one or more virtual base stations and/or one or more virtual base station functions. For example, in some aspects, two or more base station functions may be instantiated on a single device. In some aspects, the term "base station," "network node," or "network entity" may refer to one of the base station functions and not another. In this way, a single device may include more than one base station.

(18) The wireless network **100** may include one or more relay stations. A relay station is an entity that can receive a transmission of data from an upstream station (e.g., a base station **110** or a UE **120**) and send a transmission of the data to a downstream station (e.g., a UE **120** or a base station **110**). A relay station may be a UE **120** that can relay transmissions for other UEs **120**. In the example shown in FIG. **1**, the BS **110***d* (e.g., a relay base station) may communicate with the BS **110***a* (e.g., a macro base station) and the UE **120***d* in order to facilitate communication between the BS **110***a* and the UE **120***d*. A base station **110** that relays communications may be referred to as a relay station, a relay base station, a relay, or the like.

(19) The wireless network **100** may be a heterogeneous network that includes base stations **110** of different types, such as macro base stations, pico base stations, femto base stations, relay base stations, or the like. These different types of base stations **110** may have different transmit power levels, different coverage areas, and/or different impacts on interference in the wireless network **100**. For example, macro base stations may have a high transmit power level (e.g., 5 to 40 watts) whereas pico base stations, femto base stations, and relay base stations may have lower transmit power levels (e.g., 0.1 to 2 watts).

(20) A network controller **130** may couple to or communicate with a set of base stations **110** and may provide coordination and control for these base stations **110**. The network controller **130** may communicate with the base stations **110** via a backhaul communication link. The base stations **110** may communicate with one another directly or indirectly via a wireless or wireline backhaul communication link.

(21) The UEs **120** may be dispersed throughout the wireless network **100**, and each UE **120** may be stationary or mobile. A UE **120** may include, for example, an access terminal, a terminal, a mobile station, and/or a subscriber unit. A UE **120** may be a cellular phone (e.g., a smart phone), a personal digital assistant (PDA), a wireless modem, a wireless communication device, a handheld device, a laptop computer, a cordless phone, a wireless local loop (WLL) station, a tablet, a camera, a gaming device, a netbook, a smartbook, an ultrabook, a medical device, a biometric device, a wearable device (e.g., a smart watch, smart clothing, smart glasses, a smart wristband, smart jewelry (e.g., a smart ring or a smart bracelet)), an entertainment device (e.g., a music device, a video device, and/or a satellite radio), a vehicular component or sensor, a smart meter/sensor, industrial manufacturing equipment, a global positioning system device, and/or any other suitable device that is configured to communicate via a wireless medium.

(22) Some UEs **120** may be considered machine-type communication (MTC) or evolved or enhanced machine-type communication (eMTC) UEs. An MTC UE and/or an eMTC UE may include, for example, a robot, a drone, a remote device, a sensor, a meter, a monitor, and/or a location tag, that may communicate with a base station, another device (e.g., a remote device), or some other entity. Some UEs **120** may be considered Internet-of-Things (IoT) devices, and/or may be implemented as NB-IoT (narrowband IoT) devices. Some UEs **120** may be considered a Customer Premises Equipment. A UE **120** may be included inside a housing that houses components of the UE **120**, such as processor components and/or memory components. In some

examples, the processor components and the memory components may be coupled together. For example, the processor components (e.g., one or more processors) and the memory components (e.g., a memory) may be operatively coupled, communicatively coupled, electronically coupled, and/or electrically coupled.

(23) In general, any number of wireless networks **100** may be deployed in a given geographic area. Each wireless network **100** may support a particular RAT and may operate on one or more frequencies. A RAT may be referred to as a radio technology, an air interface, or the like. A frequency may be referred to as a carrier, a frequency channel, or the like. Each frequency may support a single RAT in a given geographic area in order to avoid interference between wireless networks of different RATs. In some cases, NR or 5G RAT networks may be deployed.

(24) In some examples, two or more UEs **120** (e.g., shown as UE **120***a* and UE **120***e*) may communicate directly using one or more sidelink channels (e.g., without using a base station **110** as an intermediary to communicate with one another). For example, the UEs **120** may communicate using peer-to-peer (P2P) communications, device-to-device (D2D) communications, a vehicle-to-everything (V2X) protocol (e.g., which may include a vehicle-to-vehicle (V2V) protocol, a vehicle-to-infrastructure (V2I) protocol, or a vehicle-to-pedestrian (V2P) protocol), and/or a mesh network. In such examples, a UE **120** may perform scheduling operations, resource selection operations, and/or other operations described elsewhere herein as being performed by the base station **110**.

(25) Devices of the wireless network **100** may communicate using the electromagnetic spectrum, which may be subdivided by frequency or wavelength into various classes, bands, channels, or the like. For example, devices of the wireless network **100** may communicate using one or more operating bands. In 5G NR, two initial operating bands have been identified as frequency range designations FR1 (410 MHz-7.125 GHz) and FR2 (24.25 GHz-52.6 GHz). It should be understood that although a portion of FR1 is greater than 6 GHz, FR1 is often referred to (interchangeably) as a "Sub-6 GHz" band in various documents and articles. A similar nomenclature issue sometimes occurs with regard to FR2, which is often referred to (interchangeably) as a "millimeter wave" band in documents and articles, despite being different from the extremely high frequency (EHF) band (30 GHz-300 GHz) which is identified by the International Telecommunications Union (ITU) as a "millimeter wave" band.

(26) The frequencies between FR1 and FR2 are often referred to as mid-band frequencies. Recent 5G NR studies have identified an operating band for these mid-band frequencies as frequency range designation FR3 (7.125 GHz-24.25 GHz). Frequency bands falling within FR3 may inherit FR1 characteristics and/or FR2 characteristics, and thus may effectively extend features of FR1 and/or FR2 into mid-band frequencies. In addition, higher frequency bands are currently being explored to extend 5G NR operation beyond 52.6 GHz. For example, three higher operating bands have been identified as frequency range designations FR4a or FR4-1 (52.6 GHz-71 GHz), FR4 (52.6 GHz-114.25 GHz), and FR5 (114.25 GHz-300 GHz). Each of these higher frequency bands falls within the EHF band.

(27) With the above examples in mind, unless specifically stated otherwise, it should be understood that the term "sub-6 GHz" or the like, if used herein, may broadly represent frequencies that may be less than 6 GHz, may be within FR1, or may include mid-band frequencies. Further, unless specifically stated otherwise, it should be understood that the term "millimeter wave" or the like, if used herein, may broadly represent frequencies that may include mid-band frequencies, may be within FR2, FR4, FR4-a or FR4-1, and/or FR5, or may be within the EHF band. It is contemplated that the frequencies included in these operating bands (e.g., FR1, FR2, FR3, FR4, FR4-a, FR4-1, and/or FR5) may be modified, and techniques described herein are applicable to those modified frequency ranges.

(28) In some aspects, the UE **120** may include a communication manager **140**. As described in more detail elsewhere herein, the communication manager **140** may receive a first dormancy indication and a second dormancy indication; and communicate in a wireless network based at least

in part on associating the first dormancy indication with a first dormancy state of a first network entity in the wireless network and associating the second dormancy indication with a second dormancy state of a second network entity in the wireless network. Additionally, or alternatively, the communication manager **140** may perform one or more other operations described herein.

(29) In some aspects, the network entity may include a communication manager **150**. As described in more detail elsewhere herein, the communication manager **150** may transmit a first dormancy indication that indicates a first dormancy state of a first network entity in a wireless network and a second dormancy indication that indicates a second dormancy state of a second network entity in the wireless network, the first network entity and the second network entity associated with UE; and communicate in the wireless network based at least in part on the first dormancy state of the first network entity or the second dormancy state of the second network entity. Additionally, or alternatively, the communication manager **150** may perform one or more other operations described herein.

(30) As indicated above, FIG. **1** is provided as an example. Other examples may differ from what is described with regard to FIG. **1**.

(31) FIG. **2** is a diagram illustrating an example **200** of a base station **110** in communication with a UE **120** in a wireless network **100**, in accordance with the present disclosure. The base station **110** may be equipped with a set of antennas **234***a* through **234***t*, such as T antennas (T≥1). The UE **120** may be equipped with a set of antennas **252***a* through **252***r*, such as R antennas (R≥1).

(32) At the base station **110**, a transmit processor **220** may receive data, from a data source **212**, intended for the UE **120** (or a set of UEs **120**). The transmit processor **220** may select one or more modulation and coding schemes (MCSs) for the UE **120** based at least in part on one or more channel quality indicators (CQIs) received from that UE **120**. The base station **110** may process (e.g., encode and modulate) the data for the UE **120** based at least in part on the MCS(s) selected for the UE **120** and may provide data symbols for the UE **120**. The transmit processor **220** may process system information (e.g., for semi-static resource partitioning information (SRPI)) and control information (e.g., CQI requests, grants, and/or upper layer signaling) and provide overhead symbols and control symbols. The transmit processor **220** may generate reference symbols for reference signals (e.g., a cell-specific reference signal (CRS) or a demodulation reference signal (DMRS)) and synchronization signals (e.g., a primary synchronization signal (PSS) or a secondary synchronization signal (SSS)). A transmit (TX) multiple-input multiple-output (MIMO) processor **230** may perform spatial processing (e.g., precoding) on the data symbols, the control symbols, the overhead symbols, and/or the reference symbols, if applicable, and may provide a set of output symbol streams (e.g., T output symbol streams) to a corresponding set of modems **232** (e.g., T modems), shown as modems **232***a* through **232***t*. For example, each output symbol stream may be provided to a modulator component (shown as MOD) of a modem **232**. Each modem **232** may use a respective modulator component to process a respective output symbol stream (e.g., for OFDM) to obtain an output sample stream. Each modem **232** may further use a respective modulator component to process (e.g., convert to analog, amplify, filter, and/or upconvert) the output sample stream to obtain a downlink signal. The modems **232***a* through **232***t* may transmit a set of downlink signals (e.g., T downlink signals) via a corresponding set of antennas **234** (e.g., T antennas), shown as antennas **234***a* through **234***t*.

(33) At the UE **120**, a set of antennas **252** (shown as antennas **252***a* through **252***r*) may receive the downlink signals from the base station **110** and/or other base stations **110** and may provide a set of received signals (e.g., R received signals) to a set of modems **254** (e.g., R modems), shown as modems **254***a* through **254***r*. For example, each received signal may be provided to a demodulator component (shown as DEMOD) of a modem **254**. Each modem **254** may use a respective demodulator component to condition (e.g., filter, amplify, downconvert, and/or digitize) a received signal to obtain input samples. Each modem **254** may use a demodulator component to further process the input samples (e.g., for OFDM) to obtain received symbols. A MIMO detector **256** may

obtain received symbols from the modems **254**, may perform MIMO detection on the received symbols if applicable, and may provide detected symbols. A receive processor **258** may process (e.g., demodulate and decode) the detected symbols, may provide decoded data for the UE **120** to a data sink **260**, and may provide decoded control information and system information to a controller/processor **280**. The term "controller/processor" may refer to one or more controllers, one or more processors, or a combination thereof. A channel processor may determine a reference signal received power (RSRP) parameter, a received signal strength indicator (RSSI) parameter, a reference signal received quality (RSRQ) parameter, and/or a CQI parameter, among other examples. In some examples, one or more components of the UE **120** may be included in a housing **284**.

(34) The network controller **130** may include a communication unit **294**, a controller/processor **290**, and a memory **292**. The network controller **130** may include, for example, one or more devices in a core network. The network controller **130** may communicate with the base station **110** via the communication unit **294**.

(35) One or more antennas (e.g., antennas **234***a* through **234***t* and/or antennas **252***a* through **252***r*) may include, or may be included within, one or more antenna panels, one or more antenna groups, one or more sets of antenna elements, and/or one or more antenna arrays, among other examples. An antenna panel, an antenna group, a set of antenna elements, and/or an antenna array may include one or more antenna elements (within a single housing or multiple housings), a set of coplanar antenna elements, a set of non-coplanar antenna elements, and/or one or more antenna elements coupled to one or more transmission and/or reception components, such as one or more components of FIG. **2**.

(36) On the uplink, at the UE **120**, a transmit processor **264** may receive and process data from a data source **262** and control information (e.g., for reports that include RSRP, RSSI, RSRQ, and/or CQI) from the controller/processor **280**. The transmit processor **264** may generate reference symbols for one or more reference signals. The symbols from the transmit processor **264** may be precoded by a TX MIMO processor **266** if applicable, further processed by the modems **254** (e.g., for DFT-s-OFDM or CP-OFDM), and transmitted to the base station **110**. In some examples, the modem **254** of the UE **120** may include a modulator and a demodulator. In some examples, the UE **120** includes a transceiver. The transceiver may include any combination of the antenna(s) **252**, the modem(s) **254**, the MIMO detector **256**, the receive processor **258**, the transmit processor **264**, and/or the TX MIMO processor **266**. The transceiver may be used by a processor (e.g., the controller/processor **280**) and the memory **282** to perform aspects of any of the methods described herein (e.g., with reference to FIGS. **3**-**9**).

(37) At the base station **110**, the uplink signals from UE **120** and/or other UEs may be received by the antennas **234**, processed by the modem **232** (e.g., a demodulator component, shown as DEMOD, of the modem **232**), detected by a MIMO detector **236** if applicable, and further processed by a receive processor **238** to obtain decoded data and control information sent by the UE **120**. The receive processor **238** may provide the decoded data to a data sink **239** and provide the decoded control information to the controller/processor **240**. The base station **110** may include a communication unit **244** and may communicate with the network controller **130** via the communication unit **244**. The base station **110** may include a scheduler **246** to schedule one or more UEs **120** for downlink and/or uplink communications. In some examples, the modem **232** of the base station **110** may include a modulator and a demodulator. In some examples, the base station **110** includes a transceiver. The transceiver may include any combination of the antenna(s) **234**, the modem(s) **232**, the MIMO detector **236**, the receive processor **238**, the transmit processor **220**, and/or the TX MIMO processor **230**. The transceiver may be used by a processor (e.g., the controller/processor **240**) and the memory **242** to perform aspects of any of the methods described herein (e.g., with reference to FIGS. **3**-**9**).

(38) The controller/processor **240** of the base station **110**, the controller/processor **280** of the UE

120, and/or any other component(s) of FIG. **2** may perform one or more techniques associated with dormancy indications for multiple network entities, as described in more detail elsewhere herein. In some aspects, a TRP described herein is the base station **110**, is included in the base station **110**, or includes one or more components of the base station **110** shown in FIG. **2**. The controller/processor **240** of the base station **110**, the controller/processor **280** of the UE **120**, and/or any other component(s) of FIG. **2** may perform or direct operations of, for example, process **600** of FIG. **6**, process **700** of FIG. **7**, and/or other processes as described herein. The memory **242** and the memory **282** may store data and program codes for the base station **110** and the UE **120**, respectively. In some examples, the memory **242** and/or the memory **282** may include a non-transitory computer-readable medium storing one or more instructions (e.g., code and/or program code) for wireless communication. For example, the one or more instructions, when executed (e.g., directly, or after compiling, converting, and/or interpreting) by one or more processors of the base station **110** and/or the UE **120**, may cause the one or more processors, the UE **120**, and/or the base station **110** to perform or direct operations of, for example, process **600** of FIG. **6**, process **700** of FIG. **7**, and/or other processes as described herein. In some examples, executing instructions may include running the instructions, converting the instructions, compiling the instructions, and/or interpreting the instructions, among other examples.

(39) In some aspects, a UE (e.g., the UE **120**) includes means for receiving a first dormancy indication and a second dormancy indication; and/or means for communicating in a wireless network based at least in part on associating the first dormancy indication with a first dormancy state of a first network entity in the wireless network and associating the second dormancy indication with a second dormancy state of a second network entity in the wireless network. The means for the UE to perform operations described herein may include, for example, one or more of communication manager **140**, antenna **252**, modem **254**, MIMO detector **256**, receive processor **258**, transmit processor **264**, TX MIMO processor **266**, controller/processor **280**, or memory **282**.

(40) In some aspects, a network entity includes means for transmitting a first dormancy indication that indicates a first dormancy state of a first network entity in a wireless network and a second dormancy indication that indicates a second dormancy state of a second network entity in the wireless network, the first network entity and the second network entity associated with a UE; and/or means for communicating in the wireless network based at least in part on the first dormancy state of the first network entity or the second dormancy state of the second network entity. In some aspects, the means for the network entity to perform operations described herein may include, for example, one or more of communication manager **150**, transmit processor **220**, TX MIMO processor **230**, modem **232**, antenna **234**, MIMO detector **236**, receive processor **238**, controller/processor **240**, memory **242**, or scheduler **246**. In some aspects, the means for the network entity to perform operations described herein may include, for example, one or more of communication manager **140**, antenna **252**, modem **254**, MIMO detector **256**, receive processor **258**, transmit processor **264**, TX MIMO processor **266**, controller/processor **280**, or memory **282**

(41) While blocks in FIG. **2** are illustrated as distinct components, the functions described above with respect to the blocks may be implemented in a single hardware, software, or combination component or in various combinations of components. For example, the functions described with respect to the transmit processor **264**, the receive processor **258**, and/or the TX MIMO processor **266** may be performed by or under the control of the controller/processor **280**.

(42) As indicated above, FIG. **2** is provided as an example. Other examples may differ from what is described with regard to FIG. **2**.

(43) FIG. **3** illustrates an example logical architecture of a distributed RAN **300**, in accordance with the present disclosure.

(44) A 5G access node **305** may include an access node controller **310**. The access node controller **310** may be a central unit (CU) of the distributed RAN **300**. In some aspects, a backhaul interface to a 5G core network **315** may terminate at the access node controller **310**. The 5G core network

315 may include a 5G control plane component **320** and a 5G user plane component **325** (e.g., a 5G gateway), and the backhaul interface for one or both of the 5G control plane and the 5G user plane may terminate at the access node controller **310**. Additionally, or alternatively, a backhaul interface to one or more neighbor access nodes **330** (e.g., another 5G access node **305** and/or an LTE access node) may terminate at the access node controller **310**.

(45) The access node controller **310** may include and/or may communicate with one or more TRPs **335** (e.g., via an F1 Control (F1-C) interface and/or an F1 User (F1-U) interface). A TRP **335** may be a distributed unit (DU) of the distributed RAN **300**. In some aspects, a TRP **335** may correspond to a base station **110** described above in connection with FIG. **1**. For example, different TRPs **335** may be included in different base stations **110**. Additionally, or alternatively, multiple TRPs **335** may be included in a single base station **110**. In some aspects, a base station **110** may include a CU (e.g., access node controller **310**) and/or one or more DUs (e.g., one or more TRPs **335**). In some cases, a TRP **335** may be referred to as a cell, a panel, an antenna array, or an array.

(46) A TRP **335** may be connected to a single access node controller **310** or to multiple access node controllers **310**. In some aspects, a dynamic configuration of split logical functions may be present within the architecture of distributed RAN **300**. For example, a packet data convergence protocol (PDCP) layer, a radio link control (RLC) layer, and/or a medium access control (MAC) layer may be configured to terminate at the access node controller **310** or at a TRP **335**.

(47) In some aspects, multiple TRPs **335** may transmit communications (e.g., the same communication or different communications) in the same transmission time interval (TTI) (e.g., a slot, a mini-slot, a subframe, or a symbol) or different TTIs using different quasi co-location (QCL) relationships (e.g., different spatial parameters, different transmission configuration indicator (TCI) states, different precoding parameters, and/or different beamforming parameters). In some aspects, a TCI state may be used to indicate one or more QCL relationships. A TRP **335** may be configured to individually (e.g., using dynamic selection) or jointly (e.g., using joint transmission with one or more other TRPs **335**) serve traffic to a UE **120**.

(48) As indicated above, FIG. **3** is provided as an example. Other examples may differ from what was described with regard to FIG. **3**.

(49) FIG. **4** is a diagram illustrating an example **400** of multiple transmission/reception point (multi-TRP, mTRP) communication (sometimes referred to as multi-panel communication), in accordance with the present disclosure. As shown in FIG. **4**, multiple TRPs (shown as TRP **405** and TRP **410**) may communicate with the same UE **120**. The TRP **405** and/or the TRP **410** may correspond to a TRP **335** described above in connection with FIG. **3**.

(50) The multiple TRPs (e.g., the TRP **405** and the TRP **410**) may communicate with the same UE **120** in a coordinated manner (e.g., using coordinated multipoint transmissions) to improve reliability and/or increase throughput. The TRP **405** and the TRP **410** may coordinate such communications via an interface (e.g., a backhaul interface and/or an access node controller **310** between the TRPs). The interface may have a smaller delay and/or higher capacity when the TRP **405** and the TRP **410** are co-located at the same base station **110** (e.g., when the TRP **405** and the TRP **410** are different antenna arrays or panels of the same base station **110**), and may have a larger delay and/or lower capacity (as compared to co-location) when the TRP **405** and the TRP **410** are located at different base stations **110**. The TRP **405** and the TRP **410** may communicate with the UE **120** using different QCL relationships (e.g., different TCI states), different demodulation reference signal (DMRS) ports, and/or different layers (e.g., of a multi-layer communication).

(51) In a first multi-TRP transmission mode (e.g., Mode 1), a single physical downlink control channel (PDCCH) may be used to schedule downlink data communications for a single physical downlink shared channel (PDSCH). In this case, multiple TRPs (e.g., TRP **405** and the TRP **410**) may transmit communications to the UE **120** on the same PDSCH. For example, a communication may be transmitted using a single codeword with different spatial layers for each TRP (e.g., where one codeword maps to a first set of layers transmitted by the TRP **405** and maps to a second set of

layers transmitted by the TRP **410**). As another example, a communication may be transmitted using multiple codewords, where different codewords are transmitted by the TRP **405** and the TRP **410** (e.g., using different sets of layers). In either case, the TRP **405** and the TRP **410** may use different QCL relationships (e.g., different TCI states) for different DMRS ports corresponding to different layers. For example, the TRP **405** may use a first QCL relationship or a first TCI state for a first set of DMRS ports corresponding to a first set of layers, and the TRP **410** may use a second (different) QCL relationship or a second (different) TCI state for a second (different) set of DMRS ports corresponding to a second (different) set of layers. In some aspects, a TCI state in downlink control information (DCI) (e.g., transmitted on the PDCCH, such as DCI format 1_0 or DCI format 1_1) may indicate the first QCL relationship (e.g., by indicating a first TCI state) and the second QCL relationship (e.g., by indicating a second TCI state). The first and the second TCI states may be indicated using a TCI field in the DCI. In general, the TCI field can indicate a single TCI state (for single-TRP transmission) or multiple TCI states (for multi-TRP transmission as discussed here) in this multi-TRP transmission mode (e.g., Mode 1). The Mode 1 multi-TRP transmission mode may alternatively or additionally be referred to as a single-downlink control information (sDCI) multi-TRP (mTRP) mode (e.g., an sDCI mTRP mode).

(52) In a second multi-TRP transmission mode (e.g., Mode 2), multiple PDCCHs may be used to schedule downlink data communications for multiple corresponding PDSCHs (e.g., one PDCCH for each PDSCH). In this case, a first PDCCH may schedule a first codeword to be transmitted by the TRP **405**, and a second PDCCH may schedule a second codeword to be transmitted by the TRP **410**. Furthermore, first DCI (e.g., transmitted by the TRP **405**) may schedule a first PDSCH communication associated with a first set of DMRS ports with a first QCL relationship (e.g., indicated by a first TCI state) for the TRP **405**, and second DCI (e.g., transmitted by the TRP **410**) may schedule a second PDSCH communication associated with a second set of DMRS ports with a second QCL relationship (e.g., indicated by a second TCI state) for the TRP **410**. In this case, DCI (e.g., having DCI format 1_0 or DCI format 1_1) may indicate a corresponding TCI state for a TRP (e.g., the TRP **405** or the TRP **410**) corresponding to the DCI. The TCI field of a DCI indicates the corresponding TCI state (e.g., the TCI field of the first DCI indicates the first TCI state and the TCI field of the second DCI indicates the second TCI state). The Mode 2 multi-TRP transmission mode may alternatively or additionally be referred to as a multiple downlink control information (multi-DCI, mDCI) mTRP mode (e.g., an mDCI mTRP mode).

(53) The demand for services provided by a cellular network continues to increase as more and more devices access the cellular network. In some aspects, adding network entities (e.g., base stations and/or TRPs) to the cellular network may help provide the cellular network with an ability to service more devices by expanding a cellular coverage area and/or increasing a signal strength in the coverage area. However, adding the network entities may increase an operating cost associated with the cellular network. As one example, adding more network entities may increase energy consumption in the cellular network and, subsequently, increase the operating cost of the cellular network. To illustrate, a first primary cell (PCell) or secondary cell (SCell) that includes two active TRPs (e.g., the TRP **405** and the TRP **410**) may consume more energy relative to a second PCell or SCell that includes one active TRP and one dormant TRP. “Dormant TRP” may denote a TRP operating in a dormant and/or idle state with reduced functionality relative to an active TRP. For example, a dormant TRP may transmit less information and/or transmit information less frequently (e.g., using a PDCCH). Transitioning a TRP or another network entity into a dormant mode may help reduce energy consumption in the cellular network and reduce operating costs. As one example, a network entity in the cellular network may determine to dynamically transition a TRP into a dormant mode during time periods that historically have reduced demand for cellular services (e.g., 12:00 AM to 6:00 AM) to reduce energy consumption and dynamically transition the TRP to an active mode during time periods that historically have increased demand for cellular services (e.g., 6:00 AM to 12:00 AM).

(54) In some aspects, a first network entity (e.g., a base station or a first TRP) may indicate dormancy state information of one or more network entities (e.g., the first TRP **405** and/or the second TRP **410**) to a UE. The dormancy state information may indicate a dormancy state associated with a network entity (e.g., whether the network entity is operating in, or transitioning to, an active mode or a dormant mode). Based at least in part on receiving the dormancy state information, the UE may monitor a PDCCH associated with a dormant network entity less frequently relative to a PDCCH associated with an active network entity and reduce energy consumption at the UE. As another example, the UE may refrain from monitoring for PDSCH transmissions associated with the dormant network entity relative to PDSCH transmissions associated with the active network entity, which may also reduce energy consumption at the UE.
(55) In some aspects, the first network entity may jointly indicate dormancy state information associated with multiple network entities. The joint indication of dormancy state information may cause the UE to misinterpret which network entity has transitioned into a dormant mode or an active mode. As one example, the first network entity may indicate the dormancy state information using a field in DCI that includes N bits, where N is an integer associated with a number of multiple network entities (e.g., TRPs) associated with the UE. Each bit of the N bits in the DCI field may indicate a dormancy state (e.g., a dormant mode or an active mode) of a respective TRP associated with the UE. To illustrate, and with regard to the example **400**, the first network entity may transmit N=2 bits in DCI to indicate dormancy state information associated with the TRP **405** and the TRP **410**. However, without clarification, the UE may incorrectly interpret the bits in DCI and, subsequently, the dormancy states of the TRP **405** and the TRP **410**. For example, the UE may incorrectly associate an active mode to a dormant TRP or a dormant mode to an active TRP. As one example, the UE may interpret the dormancy indication information based at least in part on a TCI state that is common to both the TRP **405** and the TRP **410**, as further described with regard to FIG. **5**. The misinterpretation by the UE may result in disrupted and/or lost communications between the first network entity and the UE, such as by the UE monitoring a PDCCH and/or PDSCH of a dormant TRP instead of an active TRP.
(56) Some techniques and apparatuses described herein provide dormancy indications for multiple network entities. In some aspects, a UE may receive a first dormancy indication and a second dormancy indication. As one example, the UE may receive the multiple dormancy indications from a network entity, such as a TRP and/or a base station. Based at least in part on receiving the multiple dormancy indications, the UE may communicate in a wireless network by associating the first dormancy indication with a first dormancy state of a first network entity in the wireless network and associating the second dormancy indication with a second dormancy state of a second network entity in the wireless network. In some aspects, the UE may associate the first dormancy indication with the first network entity and the second dormancy indication with the second network entity based at least in part on a dormancy indication configuration, as further described with regard to FIG. **5**. The dormancy indication configuration may provide the UE with a specific mapping between one or more dormancy indications and one or more network entities. The specific mapping may enable the UE to correctly identify a dormancy state for each respective network entity associated with the dormancy indications and mitigate disrupted and/or lost communications between the first network entity and the UE.
(57) In some aspects, a network entity may transmit a first dormancy indication that indicates a first dormancy state of a first network entity in a wireless network and a second dormancy indication that indicates a second dormancy state of a second network entity in the wireless network. As one example, the network entity may transmit the first dormancy indication and the second dormancy indication directly or indirectly (e.g., through another network entity) to a UE associated with the first network entity and the second network entity. In some aspects, the network entity may associate the first dormancy indication with the first network entity and the second dormancy indication with the second network entity based at least in part on a dormancy indication

configuration, as further described with regard to FIG. **5**. The network entity may transmit information in the wireless network (e.g., to the UE) based at least in part on the first dormancy state of the first network entity or the second dormancy state of the second network entity. In some aspects, the network entity is the first network entity or the second network entity associated with the UE. By using a dormancy indication configuration, the network entity may indicate dormancy state information to a UE such that the UE may correctly identify a dormancy state for each respective network entity associated with the dormancy indications. Using the dormancy indication configuration helps to mitigate disrupted and/or lost communications between the network entity and the UE. As indicated above, FIG. **4** is provided as an example. Other examples may differ from what is described with respect to FIG. **4**.

(58) FIG. **5** is a diagram illustrating an example **500** of a wireless communication process between a UE **501** (e.g., a UE **120** or an apparatus **800**), a first network entity **502** (e.g., a base station **110**, the TRP **405**, the TRP **335**, or an apparatus **900**), and a second network entity **503** (e.g., another base station **110**, the TRP **410**, the TRP **335**, or an apparatus **900**) in a wireless communication network, in accordance with the present disclosure.

(59) As shown by reference number **510**, the first network entity **502** may transmit, and the UE **501** may receive, first configuration information associated with communicating in a wireless network. Alternatively or additionally, as shown by reference number **520**, the second network entity **503** may transmit, and the UE **501** may receive, second configuration information associated with communicating in the wireless network. For clarity, the example **500** shows the first network entity and the second network entity each transmitting configuration information (e.g., the first configuration information and/or the second configuration information as a single transmission), but in other examples, the first network entity and/or the second network entity may communicate the configuration information to the UE **501** using multiple transmissions and/or messages. For example, the first network entity **502** and/or the second network entity **503** may transmit the configuration information using any combination of one or more radio resource control (RRC) messages, one or more medium access control (MAC) control elements (CEs), and/or downlink control information (DCI).

(60) In some aspects, the first network entity may be a first TRP (e.g., the TRP **405**) and the second network entity may be a second TRP (e.g., the TRP **410**). The UE **501** may communicate with the first network entity and the second network entity based at least in part on Mode 1 communications (e.g., an sDCI mTRP mode) or Mode 2 communications (e.g., an mDCI mTRP mode). The first network entity and the second network entity may be operating in a PCell or an SCell.

(61) The first network entity **502** and/or the second network entity **503** may indicate, in the configuration information, any combination of parameters, settings, state information, frequencies, and/or time slots, associated with wireless communications to and/or from the UE **501**. As one example of configuration information, the first network entity **502** may indicate a plurality of TCI states to the UE using one or more RRC messages. In some aspects, the network entity may indicate an identifier (ID) for each TCI state (e.g., a TCI state ID). Various MAC CEs may be used by the network entity to indicate, activate, and/or deactivate one or more of the TCI states communicated via the RRC message. As one example, the network entity may use a first MAC CE to indicate a TCI state associated with a physical control channel (PUCCH) transmission to a UE. Alternatively or additionally, the network entity may use a second MAC CE to indicate a mapping of a subset of TCI states (e.g., from the plurality of TCI states) to a TCI codepoint.

(62) A codepoint may denote a subset of elements from a group of elements, where the subset of elements may be formed using non-contiguous and/or contiguous elements from the group. To illustrate, assume the group of elements consists of an array of M elements, where M is an integer and the array may be accessed based at least in part on indices ranging from 0 to (M−1). As one example, and assuming M=50, the subset of elements forming a codepoint may consist of array elements that are non-contiguous and/or contiguous, such as array elements addressable as: array

[1], array [20], array [33], and element [49]. In some aspects, the codepoint may have relative indices such that codepoint [0]=array [1], codepoint [1]=array [20], codepoint [2]=array [33], and codepoint [3]=array [49].

(63) With regard to the plurality of TCI states, the second MAC CE may map a subset of TCI states to TCI codepoint indices and/or TCI codepoint elements. In some aspects, each TCI codepoint element may include two TCI states as further described. When operating in an sDCI mTRP mode, the first network entity **502** may indicate a first UE-specific PDSCH MAC CE that activates and/or deactivates TCI states for a first TCI codepoint associated with a PDSCH of the first network entity, and a second UE-specific PDSCH MAC CE that activates and/or deactivates TCI states for a second TCI codepoint associated with a PDSCH of the second network entity. The first network entity may configure the first TCI codepoint and the second TCI codepoint with one or more TCI states that are the same. Thus, a same TCI state may be associated with the first network entity **502** and the second network entity **503**.

(64) Alternatively or additionally, the first network entity **502** and/or the second network entity **503** may indicate, in the configuration information, a respective control resource set (CORESET) pool index (CORESETPoolIndex). A CORESET may denote a set of air interface resources (e.g., frequency partitions and/or time partitions) and a set of parameters that may be used for the respective PDCCH. To illustrate, when operating using Mode 2 communications (e.g., an mDCI mTRP mode), each network entity may utilize a different CORESET for downlink transmissions. A CORESETPoolIndex may denote the particular resources of the CORESET associated with the network entity. In some aspects, the UE **501** may use the CORESETPoolIndex to identify the respective network entity and/or the one or more resources used by the respective network entity for downlink transmissions.

(65) In some aspects, the first network entity **502** and/or the second network entity **503** may indicate, in the configuration information, a dormancy indication configuration. For example, the first network entity **502** and/or the second network entity **503** may transmit the dormancy indication configuration using one or more RRC messages, one or more MAC CEs, and/or DCI. A dormancy indication configuration may denote a mapping and/or interpretation of dormancy state information with regard to one or more network entities. The first network entity **502** and the second network entity **503** may communicate with one another using a backhaul link and/or interface (as further described with regard to FIG. **4**) to coordinate and/or synchronize a dormancy state and/or a dormancy indication configuration. While the example **500** shows the dormancy indication configuration being transmitted by the first network entity **502** and/or the second network entity **503** as part of the configuration information, other examples may use a fixed and/or pre-configured dormancy indication configuration that is not explicitly communicated between the first network entity **502**, the second network entity **503**, and/or the UE **501**. A fixed and/or pre-configured dormancy indication configuration may denote a static dormancy indication configuration that has a shared and/or common definition between at least two devices.

(66) As one example of a dormancy indication configuration, and with regard to the above example of N=2 bits of the dormancy state field in DCI, the dormancy indication configuration may indicate a first interpretation of the N=2 bits that associates a first bit of the N=2 bits (e.g., a bit at position 0 of the dormancy state field in the DCI) to the first network entity **502** and a second bit of the N=2 bits (e.g., a bit at position 1 of the dormancy state field in the DCI) to the second network entity **503**. Alternatively, the dormancy indication configuration may indicate a second interpretation of the N=2 bits that associates the first bit at position 0 to the second network entity **503** and the second bit at position 1 to the first network entity **502**. A dormancy indication configuration transmitted as part of the configuration information may enable a network entity to dynamically switch between the first interpretation of the N=2 bits and the second interpretation of the N=2 bits. Alternatively, a network entity and/or the UE **501** may use a fixed or pre-configured dormancy indication configuration that is not transmitted between devices, where the fixed or pre-configured

dormancy indication configuration may define the N=2 bit interpretation as the first interpretation or the second interpretation.

(67) In some aspects, the first network entity **502** and/or the second network entity **503** may transmit the dormancy indication configuration prior to sending the dormancy state information, as shown by the reference number **510** and/or the reference number **520**. For example, the first network entity **502** and/or the second network entity **503** may indicate the dormancy indication configuration using a field and/or information element (IE) included in an RRC message or a field of a MAC CE. Alternatively, the first network entity **502** and/or the second network entity **503** may transmit the dormancy indication configuration in DCI that also includes the dormancy state information as further described with regard to reference number **530**.

(68) The dormancy indication configuration may include a reserved bit interpretation configuration associated with a reserved bit in a TCI codepoint element for interpreting dormancy state information. For example, each TCI codepoint element in a TCI codepoint may include a serving cell ID, a bandwidth part ID, a reserved bit, and N TCI states (e.g., each TCI codepoint element includes two TCI state entries for N=2). In some aspects, a value of the reserved bit may indicate how to interpret the N bits of the dormancy state field in DCI (e.g., the first interpretation or the second interpretation as further described above), while the dormancy indication configuration may include the reserved bit interpretation configuration (e.g., how to interpret each value of the reserved bit). For example, the dormancy state information may indicate that a first value (e.g., a “0” or a “1”) for the reserved bit indicates to use the first interpretation of the N bits in the dormancy state field and that a second value (e.g., “1” or “0”) for the reserved bit indicates to use the second interpretation of the N bits in the dormancy state field. A network entity may transmit a dormancy indication configuration that indicates the reserved bit interpretation configuration as part of the configuration information, or the dormancy indication configuration that indicates the reserved bit interpretation configuration may be a fixed or pre-configured dormancy indication configuration.

(69) In some aspects, the dormancy indication configuration may indicate to interpret the dormancy state information based at least in part on a TCI codepoint index value. To illustrate, the dormancy indication configuration may specify a first range of values (e.g., 0-3) and/or an index value threshold (e.g., **3**) and indicate to interpret dormancy state information based at least in part on the first range of values and/or the index value threshold. For instance, the dormancy indication configuration may specify to use the first interpretation based at least in part on the TCI codepoint index value being included in the first range of values and/or the TCI codepoint index value satisfying the index value threshold (e.g., being below the index value threshold, being above the index value threshold, and/or being at the index value threshold). Alternatively or additionally, the dormancy indication configuration may specify a second range of values (e.g., 4-7) and indicate to interpret dormancy state information using the second interpretation and based at least in part on the TCI codepoint index value being included in the second range of values and/or failing to satisfy the index value threshold. In some aspects, the dormancy indication configuration may indicate the first range of values explicitly and indicate the second range of values implicitly (e.g., remaining index values that were not indicated in the first range of values are implicitly the second range of values). As another example, the dormancy indication configuration may indicate to interpret the dormancy state information based at least in part on whether the TCI codepoint index value is odd or even. For instance, the dormancy indication configuration may indicate to interpret the dormancy state information using the first interpretation based at least in part on when the TCI codepoint index value is even and the second interpretation based at least in part on when the TCI codepoint index value is odd (or vice versa).

(70) Similar to the TCI codepoint index value, the dormancy indication configuration may indicate to interpret the dormancy state information based at least in part on a TCI state ID value and/or a location of the TCI state value in a TCI codepoint element. To further explain, each TCI codepoint

element may include two entries for TCI state IDs: a first entry at position 0 and a second entry at position 1. In some aspects, a MAC CE layer of a network entity (e.g., the first network entity **502** or the second network entity **503**) may configure each TCI codepoint element to include a first TCI state ID with an odd value and a second TCI state ID with an even value. In some aspects, the dormancy indication configuration may indicate to (1) interpret the dormancy state information using the first interpretation based at least in part on identifying that the even TCI state ID value resides in position 0 of the TCI codepoint element and (2) interpret the dormancy state information using the second interpretation based at least in part on the even TCI state ID value residing in position 1 of the TCI codepoint element (or vice versa). Alternatively, the dormancy interpretation configuration may indicate to interpret the dormancy state information based at least in part on a position of the odd TCI state value in the TCI codepoint element. Thus, the dormancy indication configuration may be based at least in part on a location of a TCI state ID value (e.g., a position of an odd value or an even value).

(71) In some aspects, the dormancy indication configuration may be based at least in part on a CORESETPoolIndex value. To illustrate, when the first network entity **502** and the second network entity **503** communicate with the UE **501** based at least in part on Mode 2 communications (e.g., an mDCI mTRP mode), each network entity may be associated with a particular CORESETPoolIndex. To illustrate, the first network entity **502** may be associated with a first CORESETPoolIndex (e.g., CORESETPoolIndex 0) and the second network entity **503** may be associated with a second CORESETPoolIndex 1. In some aspects, the dormancy indication configuration may indicate to interpret the dormancy state information based at least in part on an ordering of the CORESETPoolIndex values associated with the first network entity **502** and the second network entity **503**. For example, and with regard to N=2 bits as further described above, the dormancy indication configuration may indicate to associate a first bit at position 0 of the dormancy state field in the DCI with the first network entity **502** based at least in part on the first CORESETPoolIndex associated with the first network entity **502**. Alternatively or additionally, the dormancy indication configuration may indicate to associate a second bit at position 1 of the dormancy state field in the DCI to the second network entity **503** based at least in part on the second CORESETPoolIndex associated with the second network entity **503**. A dormancy indication configuration that indicates how to interpret the dormancy state information based at least in part on a CORESETPoolIndex may be transmitted as part of the configuration information or may be a fixed and/or pre-configured dormancy indication configuration that is not transmitted between devices.

(72) As shown by reference number **530**, the first network entity **502** may transmit, and the UE **501** may receive, one or more dormancy indications. Alternatively or additionally, as shown by reference number **540**, the second network entity **503** may transmit, and the UE **501** may receive, one or more dormancy indications. As one example, the first network entity **502**, the second network entity **503**, and the UE **501** may communicate in the wireless network based at least in part on Mode 1 communications (e.g., in an sDCI mTRP mode) in which the first network entity **502** may transmit information to the UE **501** using PDCCH (e.g., and the second network entity **503** does not transmit information to the UE **501** using PDCCH). In other examples, the first network entity **502**, the second network entity **503**, and the UE **501** may communicate in the wireless network based at least in part on Mode 2 communications (e.g., in an mDCI mTRP mode) in which the first network entity **502** and the second network entity **503** transmit information to the UE **501** based at least in part on using respective PDCCHs and respective CORESETs. When operating using Mode 2 communications, the first network entity **502** and the second network entity **503** may communicate over a backhaul link to coordinate and/or synchronize which network entity may transition into a dormant mode. Alternatively or additionally, the first network entity **502** and the second network entity **503** may communicate over the backhaul link to coordinate and/or synchronize dormancy state information. The first network entity **502** or the second network entity **503** may transmit the dormancy state information based at least in part on which network entity

may remain in an active mode and which network entity may transition to a dormant mode. To illustrate, the network entity that remains in the active mode may transmit the dormancy state information.

(73) In some aspects, the first network entity **502** or the second network entity **503** may transmit the dormancy state information in a dormancy state field in DCI. As further described above, the first network entity **502** or the second network entity **503** may configure the dormancy state information based at least in part on a dormancy indication configuration (e.g., a dynamic dormancy indication configuration, a fixed dormancy indication configuration, or a pre-configured dormancy indication configuration). To illustrate, the first network entity **502** may position a first dormancy state associated with the first network entity in position 0 of the DCI field and a second dormancy state associated with the second network entity in position 1 of the DCI field (or vice versa) based at least in part on the dormancy indication configuration.

(74) In some aspects, the first network entity **502** and/or the second network entity **503** may indicate the dormancy indication configuration in a same transmission as the dormancy state information. As one example, DCI that includes the dormancy state information may also indicate the dormancy indication configuration. To illustrate, the DCI and/or a particular DCI format may include a dormancy indication configuration field (e.g., a third bit with regard to N=2) that may be a static field or a dynamic field. “Static field” may denote a field always present in the DCI and/or the particular DCI format. “Dynamic field” may denote a first field that may be interpreted in different ways based at least in part on a state or value of a second field. To illustrate, the DCI may include a first field that indicates a dormancy indication configuration based at least in part on a value of a second field or bit (e.g., a value of “1” in the second field indicates to interpret the first field as a dormancy indication configuration field).

(75) When the first network entity **502**, the second network entity **503**, and the UE **501** communicate in the wireless network based at least in part on using Mode 2 communications, the dormancy state information may include a single bit (e.g., N−1 bits) that indicates a dormancy state of the network entity associated with the second CORESETPoolIndex value. For instance, the first network entity **502** may transmit the single bit dormancy state information. Based at least in part on receiving the transmission from the first network entity **502**, the UE **501** may assume that the first network entity **502** is operating in an active mode and the single bit dormancy state information in the DCI is associated with the second network entity **503**.

(76) As shown by reference number **550**, the first network entity **502** and the UE **501** may communicate in the wireless network based at least in part on the dormancy state information. Alternatively or additionally, and as shown by reference number **550**, the second network entity **503** and the UE **501** may communicate in the wireless network based at least in part on the dormancy state information. While the example **500** shows that the UE **501** may communicate in the wireless network with the first network entity **502** and/or the second network entity **503** based at least in part on the dormancy state information, in some aspects, the UE **501** may refrain from communicating with the first network entity **502** and the second network entity **503** based at least in part on the dormancy state information. To illustrate, when the first network entity **502**, the second network entity **503**, and the UE **501** communicate based at least in part on using an SCell, the dormancy state information may indicate that the first network entity **502** and the second network entity **503** are transitioning into a dormant mode. When the first network entity **502** and the second network entity **503** transition to a dormant mode, the UE **501** may refrain from communicating with first network entity **502** and the second network entity **503**. When communicating in a PCell, at least one of the first network entity **502** and the second network entity **503** may be required to remain in an active mode.

(77) In some aspects, communicating based at least in part on the dormancy state information may include the UE **501** dynamically switching PDSCH reception based at least in part on the dormancy state information. For example, when the dormancy state information indicates that the second

network entity **503** is transitioning into a dormant mode, the UE **501** may refrain from monitoring the PDSCH associated with the second network entity **503** (e.g., when operating in Mode 1 or Mode 2) and/or refrain from monitoring the PDCCH associated with the second network entity **503** (e.g., when operating in Mode 2). Alternatively or additionally, communicating based at least in part on the dormancy state information may include the UE **501** dynamically switching PDCCH monitoring and/or reception. To illustrate, and with regard to the dormancy state information indicating that the second network entity **503** is transitioning into the dormant mode, the UE **501** may refrain from monitoring the PDCCH associated with the second network entity **503** and/or refrain from recovering communication repetitions (e.g., repetitive PDCCH) based on a CORESET associated with the second network entity **503**. Further, the first network entity **502** and/or the second network entity may transmit information selectively on a respective PDCCH and/or PDSCH based at least in part on the first dormancy indication or the second dormancy indication.

(78) By using a dormancy indication configuration, a first network entity may indicate dormancy state information associated with multiple network entities to a UE and mitigate ambiguity associated with which dormancy state is associated with which network entity. The dormancy indication configuration may enable the UE to correctly identify a dormancy state for a network entity out of multiple network entities. By correctly identifying the dormancy state, the UE may monitor and receive communications from an active network entity, which may help mitigate disrupted and/or lost communications caused by the UE failing to monitor the active network entity.

(79) As indicated above, FIG. **5** is provided as an example. Other examples may differ from what is described with respect to FIG. **5**.

(80) FIG. **6** is a diagram illustrating an example process **600** performed, for example, by a UE, in accordance with the present disclosure. Example process **600** is an example where the UE (e.g., UE **120**) performs operations associated with dormancy indications for multiple network entities.

(81) As shown in FIG. **6**, in some aspects, process **600** may include receiving a first dormancy indication and a second dormancy indication (block **610**). For example, the UE (e.g., using communication manager **140** and/or reception component **802**, depicted in FIG. **6**) may receive a first dormancy indication and a second dormancy indication, as described above.

(82) As further shown in FIG. **6**, in some aspects, process **600** may include communicating in a wireless network based at least in part on associating the first dormancy indication with a first dormancy state of a first network entity in the wireless network and associating the second dormancy indication with a second dormancy state of a second network entity in the wireless network (block **620**). For example, the UE (e.g., using communication manager **140** and/or dormancy manager component **808**, depicted in FIG. **8**) may communicate in a wireless network based at least in part on associating the first dormancy indication with a first dormancy state of a first network entity in the wireless network and associating the second dormancy indication with a second dormancy state of a second network entity in the wireless network, as described above. As one example, using a dormancy indication configuration may enable the UE to correctly identify a dormancy state for each respective network entity associated with the dormancy indications. Using the dormancy indication configuration may help mitigate disrupted and/or lost communications between the network entity and the UE.

(83) Process **600** may include additional aspects, such as any single aspect or any combination of aspects described below and/or in connection with one or more other processes described elsewhere herein.

(84) In a first aspect, receiving the first dormancy indication and the second dormancy indication further comprises receiving the first dormancy indication and the second dormancy indication as a first bit and a second bit in DCI. The inclusion of bits in DCI to indicate dormancy state information may enable the UE to quickly receive the dormancy state information with less air interface resources relative to other communication mechanisms.

(85) In a second aspect, alone or in combination with the first aspect, process **600** includes associating the first dormancy indication with the first network entity and the second dormancy indication with the second network entity based at least in part on a fixed dormancy indication mapping associated with the first bit and the second bit.
(86) In a third aspect, alone or in combination with one or more of the first and second aspects, the fixed dormancy indication mapping indicates a first dormancy mapping in which the first bit is associated with the first dormancy state of the first network entity and the second bit is associated with the second dormancy state of the second network entity, or a second dormancy mapping in which the first bit is associated with the second dormancy state of the second network entity and the second bit is associated with the first dormancy state of the first network entity.
(87) In a fourth aspect, alone or in combination with one or more of the first through third aspects, process **600** includes receiving an indication of a TCI codepoint element, and determining a dormancy indication configuration associated with the first bit and the second bit based at least in part on a value of a reserved bit associated with the TCI codepoint element. The use of the reserved bit enables the UE to use existing data structures (e.g., a TCI codepoint element data structure) to receive dormancy indications and maintains backwards compatibility with older devices and/or software.
(88) In a fifth aspect, alone or in combination with one or more of the first through fourth aspects, process **600** includes receiving, prior to receiving the first dormancy indication and the second dormancy indication, an RRC message that indicates a reserved bit interpretation configuration associated with the reserved bit.
(89) In a sixth aspect, alone or in combination with one or more of the first through fifth aspects, the dormancy indication configuration indicates a first bit interpretation in which the first bit is associated with the first network entity and the second bit is associated with the second network entity, or a second bit interpretation in which the first bit is associated with the second network entity and the second bit is associated with the first network entity.
(90) In a seventh aspect, alone or in combination with one or more of the first through sixth aspects, process **600** includes receiving a third bit in the DCI that indicates a dormancy indication configuration associated with the first bit and the second bit.
(91) In an eighth aspect, alone or in combination with one or more of the first through seventh aspects, process **600** includes receiving an indication of a TCI state ID, and determining a dormancy indication configuration associated with the first bit and the second bit based at least in part on a value of the TCI state ID.
(92) In a ninth aspect, alone or in combination with one or more of the first through eighth aspects, determining the dormancy indication configuration based at least in part on the value further comprises determining the dormancy indication configuration based at least in part on whether the value is an odd value or an even value.
(93) In a tenth aspect, alone or in combination with one or more of the first through ninth aspects, process **600** includes receiving an indication of a TCI codepoint index, and determining a dormancy indication configuration associated with the first bit and the second bit based at least in part on a value of the TCI codepoint index.
(94) In an eleventh aspect, alone or in combination with one or more of the first through tenth aspects, determining the dormancy indication configuration further comprises determining the dormancy indication configuration based at least in part on whether the value satisfies an index value threshold.
(95) In a twelfth aspect, alone or in combination with one or more of the first through eleventh aspects, determining the dormancy indication configuration further comprises determining the dormancy indication configuration based at least in part on whether the value is an odd value or an even value.
(96) In a thirteenth aspect, alone or in combination with one or more of the first through twelfth

aspects, process **600** includes associating the first dormancy indication with the first network entity based at least in part on a first TCI state associated with the first network entity, and associating the second dormancy indication with the second network entity based at least in part on a second TCI state associated with the second network entity.

(97) In a fourteenth aspect, alone or in combination with one or more of the first through thirteenth aspects, process **600** includes associating the first dormancy indication with the first network entity based at least in part on a first CORESET pool index associated with the first network entity, and associating the second dormancy indication with the second network entity based at least in part on a second CORESET pool index associated with the second network entity.

(98) In a fifteenth aspect, alone or in combination with one or more of the first through fourteenth aspects, receiving the first dormancy indication and the second dormancy indication further comprises receiving the second dormancy indication explicitly, and receiving the first dormancy indication implicitly with the second dormancy indication based at least in part on communicating with the first network entity and the second network entity using a PCell, wherein the first dormancy indication specifies that the first dormancy state of the first network entity is in an active mode and the second dormancy indication specifies the second dormancy state of the second network entity.

(99) In a sixteenth aspect, alone or in combination with one or more of the first through fifteenth aspects, process **600** includes associating the second dormancy indication with the second network entity based at least in part on a second CORESET pool index associated with the second network entity.

(100) In a seventeenth aspect, alone or in combination with one or more of the first through sixteenth aspects, communicating in the wireless network further comprises receiving information from the first network entity or the second network entity using a physical downlink shared channel and based at least in part on the first dormancy indication and the second dormancy indication. By using dormancy indications, the UE may preserve battery life by refraining from monitoring a physical downlink shared channel associated with a dormant network entity.

(101) In an eighteenth aspect, alone or in combination with one or more of the first through seventeenth aspects, communicating in the wireless network further comprises receiving one or more communication repetitions from the first network entity or the second network entity using a physical downlink control channel and based at least in part on the first dormancy indication and the second dormancy indication. By using dormancy indications, the UE may preserve battery life by refraining from monitoring a communication repetition associated with a dormant network entity.

(102) In a nineteenth aspect, alone or in combination with one or more of the first through eighteenth aspects, the first network entity is a first TRP and the second network entity is a second TRP.

(103) Although FIG. **6** shows example blocks of process **600**, in some aspects, process **600** may include additional blocks, fewer blocks, different blocks, or differently arranged blocks than those depicted in FIG. **6**. Additionally, or alternatively, two or more of the blocks of process **600** may be performed in parallel.

(104) FIG. **7** is a diagram illustrating an example process **700** performed, for example, by a network entity, in accordance with the present disclosure. Example process **700** is an example where the network entity (e.g., network entity **502**, the network entity **503**, the base station **110**, the TRP **405**, the TRP **410**, the TRP **335**) performs operations associated with dormancy indications for multiple network entities.

(105) As shown in FIG. **7**, in some aspects, process **700** may include transmitting a first dormancy indication that indicates a first dormancy state of a first network entity in a wireless network and a second dormancy indication that indicates a second dormancy state of a second network entity in the wireless network, the first network entity and the second network entity associated with a UE

(block **710**). For example, the network entity (e.g., using communication manager **150** and/or transmission component **904**, depicted in FIG. **9**) may transmit a first dormancy indication that indicates a first dormancy state of a first network entity in a wireless network and a second dormancy indication that indicates a second dormancy state of a second network entity in the wireless network, the first network entity and the second network entity associated with a UE, as described above.

(106) As further shown in FIG. **7**, in some aspects, process **700** may include communicating in the wireless network based at least in part on the first dormancy state of the first network entity or the second dormancy state of the second network entity (block **720**). For example, the network entity (e.g., using communication manager **150** and/or dormancy manager component **908**, depicted in FIG. **9**) may communicate in the wireless network based at least in part on the first dormancy state of the first network entity or the second dormancy state of the second network entity, as described above. As one example, by using a dormancy indication configuration, the network entity may enable the UE to correctly identify a dormancy state for each respective network entity associated with the dormancy indications. Using the dormancy indication configuration may help mitigate disrupted and/or lost communications between the network entity and the UE. Using the dormancy indication configuration may also enable the network entity to dynamically transition another network entity (or itself) to a dormant mode and reduce a power consumption in the cellular network.

(107) Process **700** may include additional aspects, such as any single aspect or any combination of aspects described below and/or in connection with one or more other processes described elsewhere herein.

(108) In a first aspect, transmitting the first dormancy indication and the second dormancy indication further comprises transmitting the first dormancy indication and the second dormancy indication as a first bit and a second bit in DCI. The inclusion of bits in DCI to indicate dormancy state information may enable the network entity to quickly transmit the dormancy state information to the UE using fewer air interface resources relative to other communication mechanisms.

(109) In a second aspect, alone or in combination with the first aspect, process **700** includes associating the first dormancy indication with the first network entity and the second dormancy indication with the second network entity based at least in part on a fixed dormancy indication mapping associated with the first bit and the second bit.

(110) In a third aspect, alone or in combination with one or more of the first and second aspects, the fixed dormancy indication mapping indicates a first dormancy mapping in which the first bit is associated with the first dormancy state of the first network entity and the second bit is associated with the second dormancy state of the second network entity, or a second dormancy mapping in which the first bit is associated with the second dormancy state of the second network entity and the second bit is associated with the first dormancy state of the first network entity.

(111) In a fourth aspect, alone or in combination with one or more of the first through third aspects, process **700** includes transmitting an indication of a TCI codepoint element, wherein the TCI codepoint element includes a reserved bit configured with a value that specifies a dormancy indication configuration associated with the first bit and the second bit.

(112) In a fifth aspect, alone or in combination with one or more of the first through fourth aspects, process **700** includes transmitting, prior to transmitting the first dormancy indication and the second dormancy indication, an RRC message that indicates a reserved bit interpretation configuration associated with the reserved bit.

(113) In a sixth aspect, alone or in combination with one or more of the first through fifth aspects, the dormancy indication configuration indicates a first bit interpretation in which the first bit is associated with the first network entity and the second bit is associated with the second network entity, or a second bit interpretation in which the first bit is associated with the second network entity and the second bit is associated with the first network entity.

(114) In a seventh aspect, alone or in combination with one or more of the first through sixth aspects, process **700** includes transmitting a third bit in the DCI that indicates a dormancy indication configuration associated with the first bit and the second bit.
(115) In an eighth aspect, alone or in combination with one or more of the first through seventh aspects, process **700** includes transmitting an indication of a TCI state ID, wherein a value of the TCI state ID specifies a dormancy indication configuration associated with the first bit and the second bit.
(116) In a ninth aspect, alone or in combination with one or more of the first through eighth aspects, the value specifies the dormancy indication configuration based at least in part on whether the value is an odd value or an even value.
(117) In a tenth aspect, alone or in combination with one or more of the first through ninth aspects, process **700** includes transmitting an indication of a TCI codepoint index, wherein a value of the TCI codepoint index specifies a dormancy indication configuration associated with the first bit and the second bit.
(118) In an eleventh aspect, alone or in combination with one or more of the first through tenth aspects, the value specifies the dormancy indication configuration based at least in part on an index value threshold.
(119) In a twelfth aspect, alone or in combination with one or more of the first through eleventh aspects, the value specifies the dormancy indication configuration based at least in part on whether the value is an odd value or an even value.
(120) In a thirteenth aspect, alone or in combination with one or more of the first through twelfth aspects, process **700** includes associating the first dormancy indication with the first network entity based at least in part on a first TCI state associated with the first network entity, and associating the second dormancy indication with the second network entity based at least in part on a second TCI state associated with the second network entity.
(121) In a fourteenth aspect, alone or in combination with one or more of the first through thirteenth aspects, process **700** includes associating the first dormancy indication with the first network entity based at least in part on a first CORESET pool index associated with the first network entity, and associating the second dormancy indication with the second network entity based at least in part on a second CORESET pool index associated with the second network entity.
(122) In a fifteenth aspect, alone or in combination with one or more of the first through fourteenth aspects, transmitting the first dormancy indication and the second dormancy indication further comprises transmitting the second dormancy indication explicitly, and transmitting the first dormancy indication implicitly with the second dormancy indication based at least in part on the first network entity and the second network entity communicating in a PCell, wherein the first dormancy indication specifies that the first dormancy state of the first network entity is in an active mode and the second dormancy indication specifies the second dormancy state of the second network entity.
(123) In a sixteenth aspect, alone or in combination with one or more of the first through fifteenth aspects, process **700** includes associating the second dormancy indication with the second network entity based at least in part on a second CORESET pool index associated with the second network entity.
(124) In a seventeenth aspect, alone or in combination with one or more of the first through sixteenth aspects, communicating in the wireless network further comprises transmitting information selectively using a physical downlink shared channel and based at least in part on the first dormancy indication or the second dormancy indication. By using dormancy indications, the network entity may reduce energy consumption the wireless network by reducing transmissions. Alternatively or additionally, the network entity may help the UE to preserve battery life by enabling the UE to refrain from monitoring a physical downlink shared channel associated with a dormant network entity.

(125) In an eighteenth aspect, alone or in combination with one or more of the first through seventeenth aspects, transmitting in the wireless network further comprises transmitting one or more communication repetitions selectively using a physical downlink control channel and based at least in part on the first dormancy state or the second dormancy state. By using dormancy indications, the network entity may reduce energy consumption the wireless network by reducing transmission of a repetitive communication. Alternatively or additionally, the network entity may help the UE to preserve battery life by enabling the UE to refrain from monitoring for the repetitive communication.
(126) In a nineteenth aspect, alone or in combination with one or more of the first through eighteenth aspects, the network entity is the first network entity or the second network entity.
(127) In a twentieth aspect, alone or in combination with one or more of the first through nineteenth aspects, the first network entity is a first TRP and the second network entity is a second TRP.
(128) Although FIG. **7** shows example blocks of process **700**, in some aspects, process **700** may include additional blocks, fewer blocks, different blocks, or differently arranged blocks than those depicted in FIG. **7**. Additionally, or alternatively, two or more of the blocks of process **700** may be performed in parallel.
(129) FIG. **8** is a diagram of an example apparatus **800** for wireless communication, in accordance with the present disclosure. The apparatus **800** may be a UE, or a UE may include the apparatus **800**. In some aspects, the apparatus **800** includes a reception component **802** and a transmission component **804**, which may be in communication with one another (for example, via one or more buses and/or one or more other components). As shown, the apparatus **800** may communicate with another apparatus **806** (such as a UE, a base station, or another wireless communication device) using the reception component **802** and the transmission component **804**. As further shown, the apparatus **800** may include the communication manager **140**. The communication manager **140** may include one or more of a dormancy manager component **808**, among other examples.
(130) In some aspects, the apparatus **800** may be configured to perform one or more operations described herein in connection with FIGS. **3**-**5**. Additionally, or alternatively, the apparatus **800** may be configured to perform one or more processes described herein, such as process **600** of FIG. **6**, or a combination thereof. In some aspects, the apparatus **800** and/or one or more components shown in FIG. **8** may include one or more components of the UE described in connection with FIG. **2**. Additionally, or alternatively, one or more components shown in FIG. **8** may be implemented within one or more components described in connection with FIG. **2**. Additionally, or alternatively, one or more components of the set of components may be implemented at least in part as software stored in a memory. For example, a component (or a portion of a component) may be implemented as instructions or code stored in a non-transitory computer-readable medium and executable by a controller or a processor to perform the functions or operations of the component.
(131) The reception component **802** may receive communications, such as reference signals, control information, data communications, or a combination thereof, from the apparatus **806**. The reception component **802** may provide received communications to one or more other components of the apparatus **800**. In some aspects, the reception component **802** may perform signal processing on the received communications (such as filtering, amplification, demodulation, analog-to-digital conversion, demultiplexing, deinterleaving, de-mapping, equalization, interference cancellation, or decoding, among other examples), and may provide the processed signals to the one or more other components of the apparatus **800**. In some aspects, the reception component **802** may include one or more antennas, a modem, a demodulator, a MIMO detector, a receive processor, a controller/processor, a memory, or a combination thereof, of the UE described in connection with FIG. **2**.
(132) The transmission component **804** may transmit communications, such as reference signals, control information, data communications, or a combination thereof, to the apparatus **806**. In some

aspects, one or more other components of the apparatus **800** may generate communications and may provide the generated communications to the transmission component **804** for transmission to the apparatus **806**. In some aspects, the transmission component **804** may perform signal processing on the generated communications (such as filtering, amplification, modulation, digital-to-analog conversion, multiplexing, interleaving, mapping, or encoding, among other examples), and may transmit the processed signals to the apparatus **806**. In some aspects, the transmission component **804** may include one or more antennas, a modem, a modulator, a transmit MIMO processor, a transmit processor, a controller/processor, a memory, or a combination thereof, of the UE described in connection with FIG. **2**. In some aspects, the transmission component **804** may be co-located with the reception component **802** in a transceiver.

(133) The reception component **802** may receive a first dormancy indication and a second dormancy indication. The dormancy manager component **808** may enable the UE to communicate in a wireless network based at least in part on associating the first dormancy indication with a first dormancy state of a first network entity in the wireless network and associating the second dormancy indication with a second dormancy state of a second network entity in the wireless network.

(134) The dormancy manager component **808** may associate the first dormancy indication with the first network entity and the second dormancy indication with the second network entity based at least in part on a fixed dormancy indication mapping associated with the first bit and the second bit.

(135) The reception component **802** may receive an indication of a transmission configuration indicator (TCI) codepoint element.

(136) The dormancy manager component **808** may determine a dormancy indication configuration associated with the first bit and the second bit based at least in part on a value of a reserved bit associated with the TCI codepoint element.

(137) The reception component **802** may receive, prior to receiving the first dormancy indication and the second dormancy indication, an RRC message that indicates a reserved bit interpretation configuration associated with the reserved bit.

(138) The reception component **802** may receive a third bit in the DCI that indicates a dormancy indication configuration associated with the first bit and the second bit.

(139) The reception component **802** may receive an indication of a TCI state ID.

(140) The dormancy manager component **808** may determine a dormancy indication configuration associated with the first bit and the second bit based at least in part on a value of the TCI state ID.

(141) The reception component **802** may receive an indication of a TCI codepoint index.

(142) The dormancy manager component **808** may determine a dormancy indication configuration associated with the first bit and the second bit based at least in part on a value of the TCI codepoint index.

(143) The dormancy manager component **808** may associate the first dormancy indication with the first network entity based at least in part on a first TCI state associated with the first network entity.

(144) The dormancy manager component **808** may associate the second dormancy indication with the second network entity based at least in part on a second TCI state associated with the second network entity.

(145) The dormancy manager component **808** may associate the first dormancy indication with the first network entity based at least in part on a first CORESET pool index associated with the first network entity.

(146) The dormancy manager component **808** may associate the second dormancy indication with the second network entity based at least in part on a second CORESET pool index associated with the second network entity.

(147) The dormancy manager component **808** may associate the second dormancy indication with the second network entity based at least in part on a second CORESET pool index associated with the second network entity.

(148) The number and arrangement of components shown in FIG. **8** are provided as an example. In practice, there may be additional components, fewer components, different components, or differently arranged components than those shown in FIG. **8**. Furthermore, two or more components shown in FIG. **8** may be implemented within a single component, or a single component shown in FIG. **8** may be implemented as multiple, distributed components. Additionally, or alternatively, a set of (one or more) components shown in FIG. **8** may perform one or more functions described as being performed by another set of components shown in FIG. **8**.
(149) FIG. **9** is a diagram of an example apparatus **900** for wireless communication, in accordance with the present disclosure. The apparatus **900** may be a network entity, or a network entity may include the apparatus **900**. In some aspects, the apparatus **900** includes a reception component **902** and a transmission component **904**, which may be in communication with one another (for example, via one or more buses and/or one or more other components). As shown, the apparatus **900** may communicate with another apparatus **906** (such as a UE, a base station, or another wireless communication device) using the reception component **902** and the transmission component **904**. As further shown, the apparatus **900** may include the communication manager **150**. The communication manager **150** may include one or more of a dormancy manager component **908**, among other examples.
(150) In some aspects, the apparatus **900** may be configured to perform one or more operations described herein in connection with FIGS. **3-5**. Additionally, or alternatively, the apparatus **900** may be configured to perform one or more processes described herein, such as process **700** of FIG. **7**, or a combination thereof. In some aspects, the apparatus **900** and/or one or more components shown in FIG. **9** may include one or more components of the network entity described in connection with FIG. **2**. Additionally, or alternatively, one or more components shown in FIG. **9** may be implemented within one or more components described in connection with FIG. **2**. Additionally, or alternatively, one or more components of the set of components may be implemented at least in part as software stored in a memory. For example, a component (or a portion of a component) may be implemented as instructions or code stored in a non-transitory computer-readable medium and executable by a controller or a processor to perform the functions or operations of the component.
(151) The reception component **902** may receive communications, such as reference signals, control information, data communications, or a combination thereof, from the apparatus **906**. The reception component **902** may provide received communications to one or more other components of the apparatus **900**. In some aspects, the reception component **902** may perform signal processing on the received communications (such as filtering, amplification, demodulation, analog-to-digital conversion, demultiplexing, deinterleaving, de-mapping, equalization, interference cancellation, or decoding, among other examples), and may provide the processed signals to the one or more other components of the apparatus **900**. In some aspects, the reception component **902** may include one or more antennas, a modem, a demodulator, a MIMO detector, a receive processor, a controller/processor, a memory, or a combination thereof, of the network entity described in connection with FIG. **2**.
(152) The transmission component **904** may transmit communications, such as reference signals, control information, data communications, or a combination thereof, to the apparatus **906**. In some aspects, one or more other components of the apparatus **900** may generate communications and may provide the generated communications to the transmission component **904** for transmission to the apparatus **906**. In some aspects, the transmission component **904** may perform signal processing on the generated communications (such as filtering, amplification, modulation, digital-to-analog conversion, multiplexing, interleaving, mapping, or encoding, among other examples), and may transmit the processed signals to the apparatus **906**. In some aspects, the transmission component **904** may include one or more antennas, a modem, a modulator, a transmit MIMO processor, a transmit processor, a controller/processor, a memory, or a combination thereof, of the

network entity described in connection with FIG. **2**. In some aspects, the transmission component **904** may be co-located with the reception component **902** in a transceiver.

(153) The transmission component **904** may transmit a first dormancy indication that indicates a first dormancy state of a first network entity in a wireless network and a second dormancy indication that indicates a second dormancy state of a second network entity in the wireless network, the first network entity and the second network entity associated with a UE. The dormancy manager component **908** may enable the network entity to communicate in the wireless network based at least in part on the first dormancy state of the first network entity or the second dormancy state of the second network entity.

(154) The dormancy manager component **908** may associate the first dormancy indication with the first network entity and the second dormancy indication with the second network entity based at least in part on a fixed dormancy indication mapping associated with the first bit and the second bit.

(155) The transmission component **904** may transmit an indication of a TCI codepoint element, wherein the TCI codepoint element includes a reserved bit configured with a value that specifies a dormancy indication configuration associated with the first bit and the second bit.

(156) The transmission component **904** may transmit, prior to transmitting the first dormancy indication and the second dormancy indication, an RRC message that indicates a reserved bit interpretation configuration associated with the reserved bit.

(157) The transmission component **904** may transmit a third bit in the DCI that indicates a dormancy indication configuration associated with the first bit and the second bit.

(158) The transmission component **904** may transmit an indication of a TCI state ID, wherein a value of the TCI state ID specifies a dormancy indication configuration associated with the first bit and the second bit.

(159) The transmission component **904** may transmit an indication of a TCI codepoint index, wherein a value of the TCI codepoint index specifies a dormancy indication configuration associated with the first bit and the second bit.

(160) The dormancy manager component **908** may associate the first dormancy indication with the first network entity based at least in part on a first TCI state associated with the first network entity.

(161) The dormancy manager component **908** may associate the second dormancy indication with the second network entity based at least in part on a second TCI state associated with the second network entity.

(162) The dormancy manager component **908** may associate the first dormancy indication with the first network entity based at least in part on a first CORESET pool index associated with the first network entity.

(163) The dormancy manager component **908** may associate the second dormancy indication with the second network entity based at least in part on a second CORESET pool index associated with the second network entity.

(164) The dormancy manager component **908** may associate the second dormancy indication with the second network entity based at least in part on a second CORESET pool index associated with the second network entity.

(165) The number and arrangement of components shown in FIG. **9** are provided as an example. In practice, there may be additional components, fewer components, different components, or differently arranged components than those shown in FIG. **9**. Furthermore, two or more components shown in FIG. **9** may be implemented within a single component, or a single component shown in FIG. **9** may be implemented as multiple, distributed components. Additionally, or alternatively, a set of (one or more) components shown in FIG. **9** may perform one or more functions described as being performed by another set of components shown in FIG. **9**.

(166) The following provides an overview of some Aspects of the present disclosure: Aspect 1: A method of wireless communication performed by a user equipment (UE), comprising: receiving a first dormancy indication and a second dormancy indication; and communicating in a wireless

network based at least in part on associating the first dormancy indication with a first dormancy state of a first network entity in the wireless network and associating the second dormancy indication with a second dormancy state of a second network entity in the wireless network. Aspect 2: The method of Aspect 1, wherein receiving the first dormancy indication and the second dormancy indication further comprises: receiving the first dormancy indication and the second dormancy indication as a first bit and a second bit in downlink control information (DCI). Aspect 3: The method of Aspect 2, further comprising: associating the first dormancy indication with the first network entity and the second dormancy indication with the second network entity based at least in part on a fixed dormancy indication mapping associated with the first bit and the second bit. Aspect 4: The method of Aspect 3, wherein the fixed dormancy indication mapping indicates: a first dormancy mapping in which the first bit is associated with the first dormancy state of the first network entity and the second bit is associated with the second dormancy state of the second network entity, or a second dormancy mapping in which the first bit is associated with the second dormancy state of the second network entity and the second bit is associated with the first dormancy state of the first network entity. Aspect 5: The method of Aspect 2, further comprising: receiving an indication of a transmission configuration indicator (TCI) codepoint element; and determining a dormancy indication configuration associated with the first bit and the second bit based at least in part on a value of a reserved bit associated with the TCI codepoint element. Aspect 6: The method of Aspect 5, further comprising: receiving, prior to receiving the first dormancy indication and the second dormancy indication, a radio resource control (RRC) message that indicates a reserved bit interpretation configuration associated with the reserved bit. Aspect 7: The method of Aspect 5 or Aspect 6, wherein the dormancy indication configuration indicates: a first bit interpretation in which the first bit is associated with the first network entity and the second bit is associated with the second network entity; or a second bit interpretation in which the first bit is associated with the second network entity and the second bit is associated with the first network entity. Aspect 8: The method of Aspect 2, further comprising: receiving a third bit in the DCI that indicates a dormancy indication configuration associated with the first bit and the second bit. Aspect 9: The method of Aspect 2, further comprising: receiving an indication of a transmission configuration indicator (TCI) state identifier (ID); and determining a dormancy indication configuration associated with the first bit and the second bit based at least in part on a value of the TCI state ID. Aspect 10: The method of Aspect 9, wherein determining the dormancy indication configuration based at least in part on the value further comprises: determining the dormancy indication configuration based at least in part on whether the value is an odd value or an even value. Aspect 11: The method of Aspect 2, further comprising: receiving an indication of a transmission configuration indicator (TCI) codepoint index; and determining a dormancy indication configuration associated with the first bit and the second bit based at least in part on a value of the TCI codepoint index. Aspect 12: The method of Aspect 11, wherein determining the dormancy indication configuration further comprises: determining the dormancy indication configuration based at least in part on whether the value satisfies an index value threshold. Aspect 13: The method of Aspect 11 or Aspect 12, wherein determining the dormancy indication configuration further comprises: determining the dormancy indication configuration based at least in part on whether the value is an odd value or an even value. Aspect 14: The method of any one of Aspects 1-13, further comprising: associating the first dormancy indication with the first network entity based at least in part on a first transmission configuration indicator (TCI) state associated with the first network entity; and associating the second dormancy indication with the second network entity based at least in part on a second TCI state associated with the second network entity. Aspect 15: The method of Aspect 1, further comprising: associating the first dormancy indication with the first network entity based at least in part on a first control resource set (CORESET) pool index associated with the first network entity; and associating the second dormancy indication with the second network entity based at least in part on a second CORESET pool index associated with the

second network entity. Aspect 16: The method of Aspect 1, wherein receiving the first dormancy indication and the second dormancy indication further comprises: receiving the second dormancy indication explicitly; and receiving the first dormancy indication implicitly with the second dormancy indication based at least in part on communicating with the first network entity and the second network entity using a primary cell (PCell), wherein the first dormancy indication specifies that the first dormancy state of the first network entity is in an active mode and the second dormancy indication specifies the second dormancy state of the second network entity. Aspect 17: The method of Aspect 16 further comprising: associating the second dormancy indication with the second network entity based at least in part on a second control resource set (CORESET) pool index associated with the second network entity. Aspect 18: The method of any one of Aspects 1-17, wherein communicating in the wireless network further comprises: receiving information from the first network entity or the second network entity using a physical downlink shared channel and based at least in part on the first dormancy indication and the second dormancy indication. Aspect 19: The method of any one of Aspects 1-17, wherein communicating in the wireless network further comprises: receiving one or more communication repetitions from the first network entity or the second network entity using a physical downlink control channel and based at least in part on the first dormancy indication and the second dormancy indication. Aspect 20: The method of any one of Aspects 1-19, wherein the first network entity is a first transmission/reception point (TRP) and the second network entity is a second TRP. Aspect 21: A method of wireless communication performed by a network entity, comprising: transmitting a first dormancy indication that indicates a first dormancy state of a first network entity in a wireless network and a second dormancy indication that indicates a second dormancy state of a second network entity in the wireless network, the first network entity and the second network entity associated with a user equipment (UE); and communicating in the wireless network based at least in part on the first dormancy state of the first network entity or the second dormancy state of the second network entity. Aspect 22: The method of Aspect 21, wherein transmitting the first dormancy indication and the second dormancy indication further comprises: transmitting the first dormancy indication and the second dormancy indication as a first bit and a second bit in downlink control information (DCI). Aspect 23: The method of Aspect 22, further comprising: associating the first dormancy indication with the first network entity and the second dormancy indication with the second network entity based at least in part on a fixed dormancy indication mapping associated with the first bit and the second bit. Aspect 24: The method of Aspect 23, wherein the fixed dormancy indication mapping indicates: a first dormancy mapping in which the first bit is associated with the first dormancy state of the first network entity and the second bit is associated with the second dormancy state of the second network entity; or a second dormancy mapping in which the first bit is associated with the second dormancy state of the second network entity and the second bit is associated with the first dormancy state of the first network entity. Aspect 25: The method of Aspect 22, further comprising: transmitting an indication of a transmission configuration indicator (TCI) codepoint element, wherein the TCI codepoint element includes a reserved bit configured with a value that specifies a dormancy indication configuration associated with the first bit and the second bit. Aspect 26: The method of Aspect 25, further comprising: transmitting, prior to transmitting the first dormancy indication and the second dormancy indication, a radio resource control (RRC) message that indicates a reserved bit interpretation configuration associated with the reserved bit. Aspect 27: The method of Aspect 25 or Aspect 26, wherein the dormancy indication configuration indicates: a first bit interpretation in which the first bit is associated with the first network entity and the second bit is associated with the second network entity; or a second bit interpretation in which the first bit is associated with the second network entity and the second bit is associated with the first network entity. Aspect 28: The method of any one of Aspects 22-27, further comprising: transmitting a third bit in the DCI that indicates a dormancy indication configuration associated with the first bit and the second bit. Aspect 29: The method of Aspect 22, further comprising: transmitting an indication

of a transmission configuration indicator (TCI) state identifier (ID), wherein a value of the TCI state ID specifies a dormancy indication configuration associated with the first bit and the second bit. Aspect 30: The method of Aspect 29, wherein the value specifies the dormancy indication configuration based at least in part on whether the value is an odd value or an even value. Aspect 31: The method of Aspect 22, further comprising: transmitting an indication of a transmission configuration indicator (TCI) codepoint index, wherein a value of the TCI codepoint index specifies a dormancy indication configuration associated with the first bit and the second bit. Aspect 32: The method of Aspect 31, wherein the value specifies the dormancy indication configuration based at least in part on an index value threshold. Aspect 33: The method of Aspect 31, wherein the value specifies the dormancy indication configuration based at least in part on whether the value is an odd value or an even value. Aspect 34: The method of any one of Aspects 21-33, further comprising: associating the first dormancy indication with the first network entity based at least in part on a first transmission configuration indicator (TCI) state associated with the first network entity; and associating the second dormancy indication with the second network entity based at least in part on a second TCI state associated with the second network entity. Aspect 35: The method of any one of Aspects 21-34, further comprising: associating the first dormancy indication with the first network entity based at least in part on a first control resource set (CORESET) pool index associated with the first network entity; and associating the second dormancy indication with the second network entity based at least in part on a second CORESET pool index associated with the second network entity. Aspect 36: The method of Aspect 21, wherein transmitting the first dormancy indication and the second dormancy indication further comprises: transmitting the second dormancy indication explicitly; and transmitting the first dormancy indication implicitly with the second dormancy indication based at least in part on the first network entity and the second network entity communicating in a primary cell (PCell), wherein the first dormancy indication specifies that the first dormancy state of the first network entity is in an active mode and the second dormancy indication specifies the second dormancy state of the second network entity. Aspect 37: The method of Aspect 36 further comprising: associating the second dormancy indication with the second network entity based at least in part on a second control resource set (CORESET) pool index associated with the second network entity. Aspect 38: The method of any one of Aspects 21-37, wherein communicating in the wireless network further comprises: transmitting information selectively using a physical downlink shared channel and based at least in part on the first dormancy indication or the second dormancy indication. Aspect 39: The method of any one of Aspects 21-38, wherein transmitting in the wireless network further comprises: transmitting one or more communication repetitions selectively using a physical downlink control channel and based at least in part on the first dormancy state or the second dormancy state. Aspect 40: The method of any one of Aspects 21-39, wherein the network entity is the first network entity or the second network entity. Aspect 41: The method of any one of Aspects 21-40, wherein the first network entity is a first transmission/reception point (TRP) and the second network entity is a second TRP. Aspect 42: An apparatus for wireless communication at a device, comprising a processor; memory coupled with the processor; and instructions stored in the memory and executable by the processor to cause the apparatus to perform the method of one or more of Aspects 1-20. Aspect 43: An apparatus for wireless communication at a device, comprising a processor; memory coupled with the processor; and instructions stored in the memory and executable by the processor to cause the apparatus to perform the method of one or more of Aspects 21-41. Aspect 44: A device for wireless communication, comprising a memory and one or more processors coupled to the memory, the one or more processors configured to perform the method of one or more of Aspects 1-20. Aspect 45: A device for wireless communication, comprising a memory and one or more processors coupled to the memory, the one or more processors configured to perform the method of one or more of Aspects 21-41. Aspect 46: An apparatus for wireless communication, comprising at least one means for performing the method of

one or more of Aspects 1-20. Aspect 47: An apparatus for wireless communication, comprising at least one means for performing the method of one or more of Aspects 21-41. Aspect 48: A non-transitory computer-readable medium storing code for wireless communication, the code comprising instructions executable by a processor to perform the method of one or more of Aspects 1-20. Aspect 49: A non-transitory computer-readable medium storing code for wireless communication, the code comprising instructions executable by a processor to perform the method of one or more of Aspects 21-41. Aspect 50: A non-transitory computer-readable medium storing a set of instructions for wireless communication, the set of instructions comprising one or more instructions that, when executed by one or more processors of a device, cause the device to perform the method of one or more of Aspects 1-20. Aspect 51: A non-transitory computer-readable medium storing a set of instructions for wireless communication, the set of instructions comprising one or more instructions that, when executed by one or more processors of a device, cause the device to perform the method of one or more of Aspects 21-41.

(167) The foregoing disclosure provides illustration and description but is not intended to be exhaustive or to limit the aspects to the precise forms disclosed. Modifications and variations may be made in light of the above disclosure or may be acquired from practice of the aspects.

(168) As used herein, the term “component” is intended to be broadly construed as hardware and/or a combination of hardware and software. “Software” shall be construed broadly to mean instructions, instruction sets, code, code segments, program code, programs, subprograms, software modules, applications, software applications, software packages, routines, subroutines, objects, executables, threads of execution, procedures, and/or functions, among other examples, whether referred to as software, firmware, middleware, microcode, hardware description language, or otherwise. As used herein, a “processor” is implemented in hardware and/or a combination of hardware and software. It will be apparent that systems and/or methods described herein may be implemented in different forms of hardware and/or a combination of hardware and software. The actual specialized control hardware or software code used to implement these systems and/or methods is not limiting of the aspects. Thus, the operation and behavior of the systems and/or methods are described herein without reference to specific software code, since those skilled in the art will understand that software and hardware can be designed to implement the systems and/or methods based, at least in part, on the description herein.

(169) As used herein, “satisfying a threshold” may, depending on the context, refer to a value being greater than the threshold, greater than or equal to the threshold, less than the threshold, less than or equal to the threshold, equal to the threshold, not equal to the threshold, or the like.

(170) Even though particular combinations of features are recited in the claims and/or disclosed in the specification, these combinations are not intended to limit the disclosure of various aspects. Many of these features may be combined in ways not specifically recited in the claims and/or disclosed in the specification. The disclosure of various aspects includes each dependent claim in combination with every other claim in the claim set. As used herein, a phrase referring to “at least one of” a list of items refers to any combination of those items, including single members. As an example, “at least one of: a, b, or c” is intended to cover a, b, c, a+b, a+c, b+c, and a+b+c, as well as any combination with multiples of the same element (e.g., a+a, a+a+a, a+a+b, a+a+c, a+b+b, a+c+c, b+b, b+b+b, b+b+c, c+c, and c+c+c, or any other ordering of a, b, and c).

(171) No element, act, or instruction used herein should be construed as critical or essential unless explicitly described as such. Also, as used herein, the articles “a” and “an” are intended to include one or more items and may be used interchangeably with “one or more.” Further, as used herein, the article “the” is intended to include one or more items referenced in connection with the article “the” and may be used interchangeably with “the one or more.” Furthermore, as used herein, the terms “set” and “group” are intended to include one or more items and may be used interchangeably with “one or more.” Where only one item is intended, the phrase “only one” or similar language is used. Also, as used herein, the terms “has,” “have,” “having,” or the like are

intended to be open-ended terms that do not limit an element that they modify (e.g., an element "having" A may also have B). Further, the phrase "based on" is intended to mean "based, at least in part, on" unless explicitly stated otherwise. Also, as used herein, the term "or" is intended to be inclusive when used in a series and may be used interchangeably with "and/or," unless explicitly stated otherwise (e.g., if used in combination with "either" or "only one of").

Claims

1. An apparatus for wireless communication at a user equipment (UE), comprising: one or more memories; and one or more processors, coupled to the one or more memories, configured to: receive a first dormancy indication and a second dormancy indication; associate the first dormancy indication with a first dormancy state of a first network entity in a wireless network based at least in part on a first transmission configuration indicator (TCI) state associated with the first network entity; associate the first dormancy indication with the first network entity based at least in part on a first control resource set (CORESET) pool index associated with the first network entity; associate the second dormancy indication with a second dormancy state of a second network entity in the wireless network based at least in part on a second TCI state associated with the second network entity; associate the second dormancy indication with the second network entity based at least in part on a second CORESET pool index associated with the second network entity; and communicate in the wireless network based at least in part on associating the first dormancy indication with the first dormancy state of the first network entity in the wireless network and associating the second dormancy indication with the second dormancy state of the second network entity in the wireless network.
2. The apparatus of claim 1, wherein the one or more processors, to receive the first dormancy indication and the second dormancy indication, are configured to: receive the first dormancy indication and the second dormancy indication as a first bit and a second bit in downlink control information (DCI).
3. The apparatus of claim 2, wherein the one or more processors are further configured to: receive an indication of a TCI codepoint element; and determine a dormancy indication configuration associated with the first bit and the second bit based at least in part on a value of a reserved bit associated with the TCI codepoint element.
4. The apparatus of claim 2, wherein the one or more processors are further configured to: receive a third bit in the DCI that indicates a dormancy indication configuration associated with the first bit and the second bit.
5. The apparatus of claim 2, wherein the one or more processors are further configured to: receive an indication of a TCI state identifier (ID); and determine a dormancy indication configuration associated with the first bit and the second bit based at least in part on a value of the TCI state ID.
6. The apparatus of claim 2, wherein the one or more processors are further configured to: receive an indication of a TCI codepoint index; and determine a dormancy indication configuration associated with the first bit and the second bit based at least in part on a value of the TCI codepoint index.
7. The apparatus of claim 1, wherein the one or more processors, to receive the first dormancy indication and the second dormancy indication, are configured to: receive the second dormancy indication explicitly; and receive the first dormancy indication implicitly with the second dormancy indication based at least in part on communicating with the first network entity and the second network entity using a primary cell (PCell), wherein the first dormancy indication specifies that the first dormancy state of the first network entity is in an active mode and the second dormancy indication specifies the second dormancy state of the second network entity.
8. The apparatus of claim 1, wherein the one or more processors, to communicate in the wireless network, are configured to: receive information from the first network entity or the second network

entity using a physical downlink shared channel and based at least in part on the first dormancy indication and the second dormancy indication.
9. The apparatus of claim 1, wherein the one or more processors, to communicate in the wireless network, are configured to: receive one or more communication repetitions from the first network entity or the second network entity using a physical downlink control channel and based at least in part on the first dormancy indication and the second dormancy indication.
10. An apparatus for wireless communication at a network entity, comprising: one or more memories; and one or more processors, coupled to the one or more memories, configured to: associate a first dormancy indication with a first dormancy state of a first network entity in a wireless network based at least in part on a first transmission configuration indicator (TCI) state associated with the first network entity; associate the first dormancy indication with the first network entity based at least in part on a first control resource set (CORESET) pool index associated with the first network entity; associate a second dormancy indication with a second dormancy state of a second network entity in the wireless network based at least in part on a second TCI state associated with the second network entity; associate the second dormancy indication with the second network entity based at least in part on a second CORESET pool index associated with the second network entity; transmit the first dormancy indication that indicates the first dormancy state of the first network entity in the wireless network and the second dormancy indication that indicates the second dormancy state of the second network entity in the wireless network, the first network entity and the second network entity associated with a user equipment (UE); and communicate in the wireless network based at least in part on the first dormancy state of the first network entity or the second dormancy state of the second network entity.
11. The apparatus of claim 10, wherein the one or more processors, to transmit the first dormancy indication and the second dormancy indication, are configured to: transmit the first dormancy indication and the second dormancy indication as a first bit and a second bit in downlink control information (DCI).
12. The apparatus of claim 11, wherein the one or more processors are further configured to: associate the first dormancy indication with the first network entity and the second dormancy indication with the second network entity based at least in part on a fixed dormancy indication mapping associated with the first bit and the second bit.
13. The apparatus of claim 11, wherein the one or more processors are further configured to: transmit an indication of a TCI codepoint element, wherein the TCI codepoint element includes a reserved bit configured with a value that specifies a dormancy indication configuration associated with the first bit and the second bit.
14. The apparatus of claim 11, wherein the one or more processors are further configured to: transmit a third bit in the DCI that indicates a dormancy indication configuration associated with the first bit and the second bit.
15. The apparatus of claim 11, wherein the one or more processors are further configured to: transmit an indication of a TCI state identifier (ID), wherein a value of the TCI state ID specifies a dormancy indication configuration associated with the first bit and the second bit.
16. The apparatus of claim 11, wherein the one or more processors are further configured to: transmit an indication of a TCI codepoint index, wherein a value of the TCI codepoint index specifies a dormancy indication configuration associated with the first bit and the second bit.
17. The apparatus of claim 10, wherein the one or more processors, to transmit the first dormancy indication and the second dormancy indication, are configured to: transmit the second dormancy indication explicitly; and transmit the first dormancy indication implicitly with the second dormancy indication based at least in part on the first network entity and the second network entity communicating in a primary cell (PCell), wherein the first dormancy indication specifies that the first dormancy state of the first network entity is in an active mode and the second dormancy indication specifies the second dormancy state of the second network entity.

18. The apparatus of claim 10, wherein the one or more processors, to communicate in the wireless network, are configured to: transmit information selectively using a physical downlink shared channel and based at least in part on the first dormancy indication or the second dormancy indication.
19. The apparatus of claim 10, wherein the one or more processors, to transmit in the wireless network, are configured to: transmit one or more communication repetitions selectively using a physical downlink control channel and based at least in part on the first dormancy state or the second dormancy state.
20. A method of wireless communication performed by a user equipment (UE), comprising: receiving a first dormancy indication and a second dormancy indication; associating the first dormancy indication with a first dormancy state of a first network entity in a wireless network based at least in part on a first transmission configuration indicator (TCI) state associated with the first network entity; associating the first dormancy indication with the first network entity based at least in part on a first control resource set (CORESET) pool index associated with the first network entity; associating the second dormancy indication with a second dormancy state of a second network entity in the wireless network based at least in part on a second TCI state associated with the second network entity; associating the second dormancy indication with the second network entity based at least in part on a second CORESET pool index associated with the second network entity; and communicating in the wireless network based at least in part on associating the first dormancy indication with the first dormancy state of the first network entity in the wireless network and associating the second dormancy indication with the second dormancy state of the second network entity in the wireless network.
21. The method of claim 20, wherein receiving the first dormancy indication and the second dormancy indication further comprises: receiving the first dormancy indication and the second dormancy indication as a first bit and a second bit in downlink control information (DCI).
22. The method of claim 21, further comprising: receiving an indication of a TCI codepoint element; and determining a dormancy indication configuration associated with the first bit and the second bit based at least in part on a value of a reserved bit associated with the TCI codepoint element.
23. The method of claim 21, further comprising: receiving a third bit in the DCI that indicates a dormancy indication configuration associated with the first bit and the second bit.
24. The method of claim 21, further comprising: receiving an indication of a TCI state identifier (ID); and determining a dormancy indication configuration associated with the first bit and the second bit based at least in part on a value of the TCI state ID.
25. The method of claim 21, further comprising: receiving an indication of a TCI codepoint index; and determining a dormancy indication configuration associated with the first bit and the second bit based at least in part on a value of the TCI codepoint index.
26. The method of claim 20, wherein receiving the first dormancy indication and the second dormancy indication further comprises: receiving the second dormancy indication explicitly; and receiving the first dormancy indication implicitly with the second dormancy indication based at least in part on communicating with the first network entity and the second network entity using a primary cell (PCell), wherein the first dormancy indication specifies that the first dormancy state of the first network entity is in an active mode and the second dormancy indication specifies the second dormancy state of the second network entity.
27. A method of wireless communication performed by a network entity, comprising: associating a first dormancy indication with a first dormancy state of a first network entity in a wireless network based at least in part on a first transmission configuration indicator (TCI) state associated with the first network entity; associating the first dormancy indication with the first network entity based at least in part on a first control resource set (CORESET) pool index associated with the first network entity; associating a second dormancy indication with a second dormancy state of a second network

entity in the wireless network based at least in part on a second TCI state associated with the second network entity; associating the second dormancy indication with the second network entity based at least in part on a second CORESET pool index associated with the second network entity transmitting the first dormancy indication that indicates the first dormancy state of the first network entity in the wireless network and the second dormancy indication that indicates the second dormancy state of the second network entity in the wireless network, the first network entity and the second network entity associated with a user equipment (UE); and communicating in the wireless network based at least in part on the first dormancy state of the first network entity or the second dormancy state of the second network entity.