3.16 Utilities and Service Systems

This section describes the regulatory and environmental setting for utilities and service systems in the program and individual project areas. It also describes impacts on utilities and service systems that would result from implementation of the program and two individual projects.

3.16.1 Existing Conditions

Regulatory Setting

Federal

Clean Water Act

Section 304 of the CWA establishes primary drinking water standards and requires states to ensure that potable water retailed to the public meets these standards. State primary and secondary drinking water standards are promulgated in 22 CCR 64431–64501. Secondary drinking water standards incorporate nonhealth risk factors including taste, odor, and appearance. The NPDES regulates the discharge of drainage to surface waters. Federal NPDES regulations are administered by the SWRCB and through the Regional Water Boards, which is the San Francisco Bay Regional Water Board in the program area. Municipal storm drainage is required to meet board standards under waste discharge regulations/NPDES permits.

State

Porter–Cologne Water Quality Control Act (Section 13000 et seq.)

The Porter–Cologne Act directs the State Water Board and Regional Water Boards to prepare Water Quality Control Plans (Basin Plans) that establish water quality objectives and beneficial uses for each body of water, including groundwater basins, within the regional boundaries. The Porter–Cologne Act empowers the State Water Board and Regional Water Boards to protect the beneficial use of California waters, thereby providing broader authority than offered by the CWA alone. The State Water Board and Regional Water Boards adopt regulations to protect surface water quality.

California Energy Commission

The California Energy Commission (CEC) regulates the provision of natural gas and electricity within the state. The CEC is the state's primary energy policy and planning agency and has five major responsibilities: forecasting future energy needs and keeping historical energy data, licensing thermal power plants 50 megawatts or larger, promoting energy efficiency through appliance and building standards, developing energy technologies and supporting renewable energy, and planning for and directing the state response to energy emergencies.

California Integrated Waste Management Board

The California Integrated Waste Management Board is the state agency designated to oversee, manage, and track California's 76 million tons of waste generated each year. It is one of the six agencies under the umbrella of the California Environmental Protection Agency. The California

Integrated Waste Management Board develops laws and regulations to control and manage waste; enforcement authority is typically delegated to the local government. The board works jointly with local government to implement regulations and fund programs.

Pursuant to the California Integrated Solid Waste Management Act of 1989, all cities in California are required to reduce the amount of solid waste disposed in landfills. Contracts that include work that will generate solid waste, including construction and demolition debris, have been targeted for participation in source-reduction, reuse, and recycling programs. Contractors are urged to manage solid waste to divert waste away from disposal in landfills (particularly Class III landfills) and to maximize source reduction, reuse, and recycling of construction and demolition debris.

Wastewater

Wastewater is regulated by the agencies listed below.

- State Water Board.
- San Francisco Regional Water Board.
- California Department of Pesticide Regulation.
- California Department of Toxic Substances.

Local

There are no local regulations that apply to the proposed program.

Environmental Setting

Water Service

The Alameda County Water District (ACWD) provides water service to the cities of Fremont, Union City, and Newark. Rural residences in eastern unincorporated Alameda County obtain water from private wells. No water service is provided at the existing windfarms.

Wastewater

No sewer/septic systems are present at the existing windfarms.

Stormwater Drainage

The program area is located entirely in a rural setting; stormwater runoff drains primarily through natural drainage swales, ditches, and watercourses. See Section 3.9, Hydrology and Water Quality, for further discussion of drainage in the project area.

Solid Waste Disposal

Two permitted, large-volume landfills are active in Alameda County: Vasco Road Landfill and the Altamont Landfill. The Vasco Road Landfill is located at 4001 North Vasco Road in Livermore. The facility accepts a variety of materials including nonhazardous industrial waste including nonfriable asbestos, contaminated soil, municipal wastewater treatment plant sludge, construction and demolition (C&D) wastes, empty containers, and other industrial and special wastes (Waste

Management n.d.). Vasco Road Landfill is estimated to have sufficient capacity through 2022 (Waste Management—Bay Area n.d.).

The Altamont Landfill is located at 10840 Altamont Pass Road in Livermore and has disposal capacity through 2045 (Contra Costa County n.d.). It accepts for disposal all nonhazardous municipal solid wastes, nonhazardous industrial and special wastes, dewatered wastewater treatment plant sludge (biosolids), treated auto shredder wastes, contaminated soils, liquids for solidification, and friable asbestos wastes (California Regional Water Quality Control Board—San Francisco Bay Region 2008:10).

3.16.2 Environmental Impacts

Methods for Analysis

Identifying the impacts of the program and proposed projects on utilities and service systems involved a review of program and project information, applicable regulations, and the ECAP.

Determination of Significance

In accordance with Appendix G of the State CEQA Guidelines, program Alternative 1, program Alternative 2, the Golden Hills project, or the Patterson Pass project would be considered to have a significant effect if it would result in any of the conditions listed below.

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Require new or expanded entitlements to water resources.
- Result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the program or proposed projects' projected demand in addition to the provider's existing commitments.
- Generate solid waste that would exceed the permitted capacity of area landfills to accommodate the project's solid waste disposal needs.
- Not comply with federal, state, and local statutes and regulations related to solid waste.

Impacts and Mitigation Measures

Impact UT-1a-1: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board—program Alternative 1: 417 MW (less than significant)

Several portable toilets would be used during construction activities, and several portable toilets would be maintained year-round onsite. Portable toilets would be serviced by a private contractor. Program Alternative 1would not generate a significant amount of wastewater that would be treated by public wastewater treatment facilities and would not exceed the San Francisco Bay Regional

Water Board's wastewater treatment requirements. This impact would be less than significant. No mitigation is required.

Impact UT-1a-2: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board—program Alternative 2: 450 MW (less than significant)

Several portable toilets would be used during construction activities, and several portable toilets would be maintained year-round onsite. Portable toilets would be serviced by a private contractor. Program Alternative 2 would not generate a significant amount of wastewater that would be treated by public wastewater treatment facilities and would not exceed the San Francisco Bay Regional Water Board's wastewater treatment requirements. This impact would be less than significant. No mitigation is required.

Impact UT-1b: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board—Golden Hills Project (less than significant)

The Golden Hills Project would not generate a significant amount of wastewater that would be treated by public wastewater treatment facilities. Up to four portable toilets would be used during construction and would be serviced by a private contractor. Accordingly, the project would not generate a significant amount of wastewater that would be treated by public wastewater treatment facilities and would not exceed the San Francisco Bay Regional Water Board's wastewater treatment requirements. This impact would be less than significant. No mitigation is required.

Impact UT-1c: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board—Patterson Pass Project (less than significant)

The Patterson Pass Project would not generate a significant amount of wastewater that would be treated by public wastewater treatment facilities. Portable toilets would be used during construction and would be serviced by a private contractor. Accordingly, the project would not generate a significant amount of wastewater that would be treated by public wastewater treatment facilities and would not exceed the San Francisco Bay Regional Water Board's wastewater treatment requirements. This impact would be less than significant. No mitigation is required.

Impact UT-2a-1: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects—program Alternative 1: 417 MW (no impact)

As stated above, program Alternative 1 would not generate a significant amount of wastewater, and water for use in the program area would be trucked in. No new water or wastewater treatment facilities would be required. There would be no impact.

Impact UT-2a-2: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects—program Alternative 2: 450 MW (no impact)

As stated above, program Alternative 1 would not generate a significant amount of wastewater, and water for use in the program area would be trucked in. No new water or wastewater treatment facilities would be required. There would be no impact.

Impact UT-2b: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects—Golden Hills Project (no impact)

The Golden Hills Project would not generate a significant amount of wastewater, and water for use at the project area would be trucked in. No new water or wastewater treatment facilities would be required. There would be no impact.

Impact UT-2c: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects—Patterson Pass Project (no impact)

The Patterson Pass Project would not generate a significant amount of wastewater, and water for use at the project area would be trucked in. No new water or wastewater treatment facilities would be required. There would be no impact.

Impact UT-3a-1: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects—program Alternative 1: 417 MW (less than significant)

Projects associated with program Alternative 1 would all be located in a rural setting; stormwater runoff drains primarily through natural drainage swales, ditches, and watercourses. This alternative would not substantially modify the existing stormwater drainage patterns at the program area, and increases in impermeable surfaces onsite would be primarily limited to tower foundations. In addition, because program Alternative 1 would disturb more than 1 acre, it would require coverage under the state's Construction General Permit. Coverage under this permit requires developing and complying with a stormwater pollution and prevention plan (SWPPP). Consequently, impacts related to construction of new stormwater drainage facilities or expansion of existing facilities would be very minor. This impact would be less than significant. No mitigation is required.

Impact UT-3a-2: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects—program Alternative 2: 450 MW (less than significant)

Projects associated with program Alternative 2 would all be located in a rural setting; stormwater runoff drains primarily through natural drainage swales, ditches, and watercourses. This alternative would not substantially modify the existing stormwater drainage patterns at the program area, and increases in impermeable surfaces onsite would be primarily limited to tower foundations. In addition, because program Alternative 2 would disturb more than 1 acre, it would require coverage under the state's Construction General Permit. Coverage under this permit requires developing and complying with a stormwater pollution and prevention plan (SWPPP). Consequently, impacts related to construction of new stormwater drainage facilities or expansion of existing facilities would be very minor. This impact would be less than significant. No mitigation is required.

Impact UT-3b: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects—Golden Hills Project (less than significant)

The Golden Hills Project is located entirely in a rural setting; stormwater runoff drains primarily through natural drainage swales, ditches, and watercourses. The Golden Hills Project would not

substantially modify the existing stormwater drainage patterns at the project site, and increases in impermeable surfaces onsite would be primarily limited to tower foundations. In addition, because the Golden Hills Project would disturb more than 1 acre, it would require coverage under the state's Construction General Permit. Coverage under this permit requires developing and complying with a SWPPP. Consequently, impacts related to construction of new stormwater drainage facilities or expansion of existing facilities would be very minor. This impact would be less than significant. No mitigation is required.

Impact UT-3c: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects—Patterson Pass Project (less than significant)

The Patterson Pass Project is located entirely in a rural setting; stormwater runoff drains primarily through natural drainage swales, ditches, and watercourses. The Patterson Pass Project would not substantially modify the existing stormwater drainage patterns at the project site, and increases in impermeable surfaces onsite would be primarily limited to tower foundations. In addition, because the Patterson Pass Project would disturb more than 1 acre, it would require coverage under the state's Construction General Permit. This includes a SWPPP. Consequently, impacts related to construction of new stormwater drainage facilities or expansion of existing facilities would be very minor. This impact would be less than significant. No mitigation is required.

Impact UT-4a-1: Require new or expanded entitlements to water resources—program Alternative 1: 417 MW (less than significant)

Under this alternative of the program, the majority of water use would take place during construction. Water would be used for concrete mixing for the turbine tower and electrical substation foundations, as well as for dust control on roads and during grading and site work. Daily water use would vary. For construction of foundations, water would be transported to the batch plant site where it would be used to mix concrete. A minimal amount of water would be required for construction worker needs (e.g., drinking water, sanitation facilities). In addition, as part of final cleanup and site restoration activities, water would be needed for revegetation measures. The project proponent plans to draw needed water for water trucks and drinking water from an offsite source. The use of water is expected to be minimal, and no new or expanded entitlements to supply the program during construction or operation are anticipated. This impact is less than significant. No mitigation is required.

Impact UT-4a-2: Require new or expanded entitlements to water resources—program Alternative 2: 450 MW (less than significant)

Under this alternative of the program, the majority of water use would take place during construction. Water would be used for concrete mixing for the turbine tower and electrical substation foundations, as well as for dust control on roads and during grading and site work. Daily water use would vary. For construction of foundations, water would be transported to the batch plant site where it would be used to mix concrete. A minimal amount of water would be required for construction worker needs (e.g., drinking water, sanitation facilities). In addition, as part of final cleanup and site restoration activities, water would be needed for revegetation measures. The project proponent plans to draw needed water for water trucks and drinking water from an offsite source. The use of water is expected to be minimal, and no new or expanded entitlements to supply

the program during construction or operation are anticipated. This impact is less than significant. No mitigation is required.

Impact UT-4b: Require new or expanded entitlements to water resources—Golden Hills Project (less than significant)

Water quantities used for the Golden Hills Project are expected to be minimal. The majority of water use would take place during construction. Water would be used for concrete mixing for the turbine tower and electrical substation foundations, as well as for dust control on roads and during grading and site work. Daily water use would vary. For construction of foundations, water would be transported to the batch plant site where it would be used to mix concrete. A minimal amount of water would be required for construction worker needs (e.g., drinking water, sanitation facilities). The project proponent plans to draw needed water for water trucks and drinking water from an offsite source.

The use of water is expected to be minimal, and no new or expanded entitlements to supply the project during construction or operation are anticipated. This impact is less than significant. No mitigation is required.

Impact UT-4c: Require new or expanded entitlements to water resources—Patterson Pass Project (less than significant)

Water quantities used for the Patterson Pass Project are expected to be minimal. The majority of water use would take place during construction. Water would be used for concrete mixing for the turbine tower and electrical substation foundations, as well as for dust control on roads and during grading and site work. Daily water use would vary. For construction of foundations, water would be transported to the batch plant site where it would be used to mix concrete. A minimal amount of water would be required for construction worker needs (e.g., drinking water, sanitation facilities). The project proponent plans to draw needed water for water trucks and drinking water from an offsite source.

The use of water is expected to be minimal, and no new or expanded entitlements to supply the project during construction or operation are anticipated. This impact is less than significant. No mitigation is required.

Impact UT-5a-1: Result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the program's projected demand in addition to the provider's existing commitments—program Alternative 1: 417 MW (no impact)

No construction or expansion of wastewater systems would be required under program Alternative 1 because the windfarms would not be connected to a public sewer system. During construction, portable toilets would be utilized. No offsite wastewater treatment provider would be necessary. There would be no impact.

Impact UT-5a-2: Result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the program's projected demand in addition to the provider's existing commitments—program Alternative 2: 450 MW (no impact)

No construction or expansion of wastewater systems would be required under program Alternative 2 because the windfarms would not be connected to a public sewer system. During construction, portable toilets would be utilized. No offsite wastewater treatment provider would be necessary. There would be no impact.

Impact UT-5b: Result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments—Golden Hills Project (no impact)

No construction or expansion of wastewater systems would be required under the Golden Hills Project because it would not be connected to a public sewer system. During construction, portable toilets would be utilized. No offsite wastewater treatment provider would be necessary. There would be no impact.

Impact UT-5c: Result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments—Patterson Pass Project (no impact)

No construction or expansion of wastewater systems would be required under the Patterson Pass Project because it would not be connected to a public sewer system. During construction, portable toilets would be utilized. No offsite wastewater treatment provider would be necessary. There would be no impact.

Impact UT-6a-1: Generate solid waste that would exceed the permitted capacity of landfills to accommodate the program's solid waste disposal needs—program Alternative 1: 417 MW (less than significant)

The majority of solid waste generation would take place during construction and during the decommissioning of windfarms. Minimal solid waste would be generated during the operation of the project. Program Alternative 1 is not anticipated to generate a substantial amount of solid waste because turbines and components will be sold or recycled, which will reduce the amount of solid waste taken to landfills. It is not anticipated that construction or operation of projects associated with program Alternative 1 would generate enough solid waste to affect the capacity of any landfill. This impact would be less than significant. No mitigation is required.

Impact UT-6a-2: Generate solid waste that would exceed the permitted capacity of landfills to accommodate the program's solid waste disposal needs—program Alternative 2: 450 MW (less than significant)

The majority of solid waste generation would take place during construction and during the decommissioning of windfarms. Minimal solid waste would be generated during the operation of the project. Program Alternative 2 is not anticipated to generate a substantial amount of solid waste because turbines and components will be sold or recycled, which will reduce the amount of solid

waste taken to landfills. It is not anticipated that construction or operation of projects associated with program Alternative 1 would generate enough solid waste to affect the capacity of any landfill. This impact would be less than significant. No mitigation is required.

Impact UT-6b: Generate solid waste that would exceed the permitted capacity of landfills to accommodate the program's solid waste disposal needs—Golden Hills Project (less than significant)

The majority of solid waste generated would be during construction and during the decommissioning of windfarms. The Golden Hills Project is not anticipated to generate a substantial amount of solid waste because turbines and components will be sold or recycled, which will reduce the amount of solid waste taken to landfills. It is not anticipated that the construction or operation of the proposed project would generate enough solid waste to affect the capacity of any landfill. This impact would be less than significant. No mitigation is required.

Impact UT-6c: Generate solid waste that would exceed the permitted capacity of landfills to accommodate the program's solid waste disposal needs—Patterson Pass Project (less than significant)

The majority of solid waste generated would be during construction and during the decommissioning of windfarms. The Patterson Pass Project is not anticipated to generate a substantial amount of solid waste because turbines and components will be sold or recycled, which will reduce the amount of solid waste taken to landfills. It is not anticipated that construction or operation of the proposed project would generate enough solid waste to affect the capacity of any landfill. This impact would be less than significant. No mitigation is required.

Impact UT-7a-1: Not comply with federal, state, and local statutes and regulations related to solid waste—program Alternative 1: 417 MW (no impact)

The program would be required to comply with local, state, and federal solid waste regulations. Most of the solid waste would be limited to the construction phase, with minimal solid waste generated during the operation of the project. Most of the wind turbine components would be resold or recycled in compliance with the County construction site waste regulations. There would be no impact.

Impact UT-7a-2: Not comply with federal, state, and local statutes and regulations related to solid waste—program Alternative 2: 450 MW (no impact)

The program would be required to comply with local, state, and federal solid waste regulations. Most of the solid waste would be limited to the construction phase, with minimal solid waste generated during the operation of the project. Most of the wind turbine components would be resold or recycled in compliance with the County construction site waste regulations. There would be no impact.

Impact UT-7b: Not comply with federal, state, and local statutes and regulations related to solid waste—Golden Hills Project (no impact)

The Golden Hills Project would be required to comply with local, state, and federal solid waste regulations. Most of the solid waste would be limited to the construction phase, with minimal solid waste generated during the operation of the project. Most of the wind turbine components would be

resold or recycled in compliance with the County construction site waste regulations. There would be no impact.

Impact UT-7c: Not comply with federal, state, and local statutes and regulations related to solid waste—Patterson Pass Project (no impact)

The Patterson Pass Project would be required to comply with local, state, and federal solid waste regulations. Most of the solid waste would be limited to the construction phase, with minimal solid waste generated during the operation of the project. Most of the wind turbine components would be resold or recycled in compliance with the County construction site waste regulations. There would be no impact.

3.16.3 References Cited

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