

ESSENTIAL WORKFORCE

On March 19, 2020, Governor Newsom issued Executive Order N-33-20 directing all residents immediately to heed current State public health directives to stay home, except as needed to maintain continuity of operations of essential critical infrastructure sectors and additional sectors as the State Public Health Officer may designate as critical to protect health and well-being of ~~all~~ Californians.

In accordance with this order, the State Public Health Officer has designated the following list of “Essential Critical Infrastructure Workers” to help state, local, tribal, and industry partners as they work to protect communities, while ensuring continuity of functions critical to public health and safety, as well as economic and national security.

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Relevant Guidance For All Sectors:

- [• Face Coverings Guidance](#)
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1. HEALTHCARE / PUBLIC HEALTH

Sector Profile

The Healthcare and Public Health (HPH) Sector is large, diverse, and open, spanning both the public and

private sectors. It includes publicly accessible healthcare facilities, research centers, suppliers, manufacturers, and other physical assets and vast, complex public-private information technology systems required for care delivery and to support the rapid, secure transmission and storage of large amounts of HPH data.

Essential Workforce

- ◆ ~~Workers providing COVID-19 testing; Workers that perform critical clinical research needed for COVID-19 response-, if remote working is not practical:~~
- ◆ 1. Health care providers and caregivers (e.g., including physicians, dentists, psychologists, mid-level practitioners, nurses and assistants, and aids; infection control and quality assurance personnel; pharmacists; physical, respiratory, speech and occupational therapists and assistants; social workers, speech and providers serving individuals with disabilities including developmental disabilities; optometrists; speech pathologists and; chiropractors; diagnostic and therapeutic technicians; and radiology technologists).
- 2. Hospital Workers required for effective clinical, command, infrastructure, support service, administrative, security and laboratory personnel (intelligence operations across the direct patient care and full healthcare and public health spectrum, including accounting, administrative, admitting and discharge, engineering, accrediting, certification, licensing, credentialing, epidemiological, source plasma and blood donation, food service, environmental services, housekeeping, medical records, information technology and operational technology, nutritionists, sanitarians, respiratory therapists, etc.); emergency medical services workers; prehospital workers including but not limited to urgent care workers; inpatient and hospital workers; outpatient care workers; home care workers; workers at long-term care facilities, residential and community-based providers; workplace safety workers).
- 3. Workers needed to support transportation to and from healthcare facilities and provider appointments.
- 4. Workers needed to provide laundry services, food services, reprocessing of medical equipment, and waste management.
- 5. Vendors and suppliers (including imaging, pharmacy, oxygen services, durable medical equipment)
- ◆ 6. Workers who perform critical clinical research, development, and testing needed for COVID-19 response.
- 7. Workers in other medical and life science facilities (including Ambulatory Health and Surgical, Blood Banks, Clinics, Community Mental Health, Comprehensive Outpatient rehabilitation, End
- ◆ Stage Renal Disease, Health Departments, Home Health care, Hospices, Hospitals, Long Term Care, Organ Pharmacies, Procurement Organizations, Psychiatric, Residential, Rural Health Clinics and Federally Qualified Health Centers, cannabis retailers and retail facilities specializing in medical goods and supplies, including cannabis).
- 8. Manufacturers Workers for health manufacturing (including life science companies, and companies that have shifted production to medical supplies), materials and parts suppliers, technicians, logistics and warehouse operators, printers, packagers, and distributors of medical

- equipment, (including those who test and repair), personal protective equipment (PPE), isolation barriers, medical
- gases, pharmaceuticals (including materials used in radioactive drugs, and cannabis products), dietary supplements, blood and blood products, vaccines, testing materials, laboratory supplies, cleaning, sanitizing, disinfecting or sterilization supplies, personal hygiene products, and tissue and paper towel products.
 - 9. Public health / community health workers, including those who compile, model, analyze and communicate public health information.
 - 10. Behavioral and mental health workers ~~(including mental and substance use disorder)~~ responsible for coordination, outreach, engagement, and treatment to individuals in need of mental health and/or substance use disorder behavioral services.
 - 11. ~~Blood and~~ Donors of blood bone marrow, blood stem cell, or plasma ~~donors~~ and the employees workers of the organizations that operate and manage related activities.
 - 12. Workers that manage health plans, billing, and health information, ~~who cannot practically work remotely.~~
 - 13. Workers who conduct community-based public health functions, conducting epidemiologic surveillance, compiling, analyzing and communicating public health information, ~~who cannot practically work remotely.~~
 - ~~Workers who provide support to vulnerable populations to ensure their health and well-being including family care providers~~
 - ~~Workers performing IT and cybersecurity functions at healthcare and public health facilities, who cannot practically work remotely.~~
 - 14. ~~Workers conducting research critical to COVID-19 response.~~
 - 15. Workers performing security, incident management, and emergency operations functions at or on behalf of healthcare entities including healthcare coalitions, ~~who cannot practically work remotely.~~
 - ~~Workers who support food, shelter, and social services, and other necessities of life for economically disadvantaged or otherwise needy individuals, such as those residing in shelters.~~
 - 16. Pharmacy employees, including workers necessary ~~for~~ to maintain uninterrupted prescription filling ~~prescriptions.~~
 - 17. ~~Workers~~ Workers in retail facilities specializing in medical goods and supplies.
 - 18. Public health and environmental health workers, including workers specializing in environmental health that focus on implementing environmental controls, sanitary and infection control interventions, healthcare facility safety and emergency preparedness planning, engineered work practices, and developing guidance and protocols for appropriate PPE to prevent COVID-19 disease transmission; Public health/ community health workers (including call center workers) who conduct community- based public health functions, conducting epidemiologic surveillance and compiling, analyzing, and communicating public health information.
 - 19. Mortuary services providers, including workers performing mortuary, funeral, cremation burial, cemetery, and related services, including funeral homes, crematoriums, ~~and~~ cemetery workers and coffin makers.
 - 20. Workers who coordinate with other organizations to ensure the proper recovery, handling, identification, transportation, tracking, storage, and disposal of human remains and

personal effects; certify cause of death; and facilitate access to behavioral and mental health services to the family members, responders, and survivors of an incident.

•21. _____ Workers supporting veterinary hospitals and clinics.

Relevant Sector Guidance:

- All Facility Letters for health care facilities, including long-term care facilities
- Health care facilities, Skilled Nursing Facilities
- Individuals with Access and Functional Needs
- Medical Waste Management - Interim Guidelines
- Outpatient Healthcare Facility Infection Control Recommendations for Suspect COVID-19 Patients
- Prioritization of Patients for Laboratory Testing for COVID-19 • _____ Veterinary Professionals and Premises
- Regional Centers:
- Visits to Licensed Residential Facilities
- Risk Mitigation Strategies for ARFPSHN, ICF/DD-CN
- Adult and Senior Care Facilities
- Cuidado a los Adultos Mayores
- Community care facilities, including assisted living facilities and child care
- Medi-Cal Managed Care Health Plans: COVID – 19 Screening and Testing
- Coverage Options Fact Sheet
- Opciones De Cobertura
- Department of Managed Health Care All Plan Letter
- California Department of Insurance Bulletin

2. EMERGENCY SERVICES SECTOR

Sector Profile

The Emergency Services Sector (ESS) is a community of highly-skilled, trained personnel, along with the physical and cyber resources, that provide a wide range of prevention, preparedness, response, and recovery services during both day-to-day operations and incident response. The ESS includes geographically distributed facilities and equipment in both paid and volunteer capacities organized primarily at the federal, state, local, tribal, and territorial levels of government, such as city police departments and fire stations, county sheriff's offices, Department of Defense police and fire departments, and town public works departments. The ESS also includes private sector resources, such as industrial fire departments, private security organizations, and private emergency medical services providers.

Essential Workforce ~~Law Enforcement,~~ if remote working is not practical:

Public Safety, private, and First Responders

- ~~Including voluntary personnel (front line and management, personnel include) in~~ emergency management, law enforcement, ~~Emergency Management Systems, fire, and and rescue services, emergency medical services, corrections, rehabilitation and reentry, search and rescue, tactical teams including hazardous material response, and technicians supporting maritime, and aviation, and canine units.~~
 - 1. Emergency Medical Technicians emergency response.
 - 2. Public Safety Answering Points and 911 call center employees; personnel involved in access to emergency services including the emergency alert system and wireless emergency alerts.
 - 3. Fusion Center employees
- ~~Fire Mitigation Activities~~
 - 4. Hazardous material responders and hazardous devices teams, from government and the private sector. Workers who support weather disaster / natural hazard monitoring, response, mitigation, and prevention, including personnel conducting, supporting, or facilitating wildfire mitigation activities
- ~~Workers – including contracted vendors -- who maintain digital systems infrastructure, manufacture, or supply equipment and services supporting law enforcement, fire, EMS, and and emergency service response operations.~~
 - 5. Private (including safety equipment, electronic security, private fire departments, and private emergency medical services personnel and uniforms)
 - 6. County workers Workers responding to abuse and neglect of children, elders and dependent adults.
 - 7. Animal control officers and humane officers
 - 8. Security staff to maintain building access control and physical security measures

Essential Workforce—Public Works

- ~~Workers who support the operation, inspection, and maintenance of essential dams, locks and levees~~
- ~~Workers who support the operation, inspection, and maintenance of essential contracted vendors who maintain and provide services and supplies to public works safety facilities and operations, including bridges, water and sewer main breaks, fleet maintenance personnel, construction of critical or strategic infrastructure, traffic signal maintenance, emergency location services for buried utilities, maintenance of digital systems infrastructure supporting public works operations, communication center, public safety answering points, public safety communications centers, emergency operation centers, fire and other emergent issues~~
- ~~Workers such as plumbers, electricians, exterminators, emergency medical services stations, police and other service providers who provide services that are necessary to maintaining the safety, sanitation, law enforcement stations and essential operation of residences.~~
 - ~~9. Support, such as road and line clearing, to ensure the availability of needed facilities; transportation, energy and communications Support to ensure the effective removal, storage, and disposal of residential and commercial solid waste and hazardous waste.~~

Relevant Sector Guidance:

- Public Health Guidance about COVID-19 for California State Prisons
- First responders, including paramedics and EMTs

3. FOOD AND AGRICULTURE

Sector Profile

The Food and Agricultural (FA) Sector is composed of complex production, processing, and delivery systems and has the capacity to feed people and animals both within and beyond the boundaries of the United States. Beyond domestic food production, the FA Sector also imports many ingredients and finished products, leading to a complex web of growers, processors, suppliers, transporters, distributors, and consumers. This ~~sectors~~sector is critical to maintaining and securing our food supply.

Essential Workforce, if remote working is not practical:

- ~~1. Workers supporting groceries, pharmacies, convenience stores, and other retail that sells food and/or beverage products, including but not limited to Grocery stores, Corner stores and convenience stores, including liquor stores that sell and animal/pet food, Farmers' markets, Food banks, Farm and produce stands, Supermarkets, Similar food-retail establishments, Big box stores that sell groceries and essentials customer support service, information technology support staff, for online orders, pickup/takeout or delivery.~~

- 2. Restaurant Workers supporting restaurant carry-out and quick serve food operations—, including food preparation, carry-out and delivery food employees.
- 3. Food manufacturer employees and their supplier employees— to include those employed in food ingredient production and processing (packers, meat processing, cheese plants, milk plants, produce, etc.) facilities; aquaculture and seafood harvesting facilities; livestock, poultry, seafood slaughter facilities; pet and animal feed processing facilities; human food facilities producing by-products for animal food; beverage production facilities; and the production of food packaging, including recycling operations and processing.
- 4. Farm Farmers, farm and ranch workers, and agribusiness support services to include those employed in auction and sales; grain and oilseed handling, storage, processing and distribution; animal food, feed, and ingredient production, packaging, and distribution; manufacturing, packaging, and distribution of veterinary drugs; truck delivery and transport; ~~farm and fishery labor needed to produce our food supply domestically.~~
- 5. Farm Farmers, farm and ranch workers and, support service workers and their supplier employees producing food supply domestically and for export to include those ~~who~~ engaged in raising, cultivating, harvesting, packing, storing, or delivering to storage or to market or to a carrier for transportation to market any agricultural or horticultural commodity for human consumption; those engaged in producing and harvesting field crops; cannabis growers; agricultural and commodity inspection; fuel ethanol facilities; storage facilities; biodiesel and renewable diesel facilities; and other agricultural inputs
- 6. Employees and firms supporting food, feed, and beverage distribution (including curbside distribution and deliveries), ingredients used in these products including warehouse workers, vendor-managed inventory controllers, and blockchain managers, ~~distribution.~~
- 7. Workers supporting the sanitation of all food manufacturing processes and operations from wholesale to retail.
- 8. Company cafeterias—Workers supporting the growth and distribution of plants and associated products for home gardens.
- 9. Workers in plant cafeterias used to feed employees workers, particularly worker populations sheltered against COVID-19
- 10. Workers in animal diagnostic and food testing labs in private industries and in institutions of higher education laboratories
- 11. Workers essential for assistance programs and government payments
- 12. Workers supporting cannabis retail Government, private, and dietary supplement retail non-governmental organizations’ workers essential for food assistance programs (including school lunch programs) and government payments.
- 13. Employees of companies engaged in the production of, storage, transport, and distribution of chemicals; medicines, including cannabis; vaccines; and other substances used by the food and agriculture industry, including seeds, pesticides, herbicides, fertilizers, minerals, enrichments, and other agricultural production aids.
- 14. Animal agriculture workers to include those employed in veterinary health; manufacturing and distribution of (including those involved in supporting emergency veterinary or livestock services); raising of animals for food; animal production operations; livestock markets; slaughter and packing plants, manufacturers, renderers, and associated regulatory and government workforce.

- 15. Transportation supporting animal agricultural industries, including movement of animal medical materials and reproductive supplies and material, animal vaccines, animal drugs, feed ingredients, feed, and bedding, etc.; transportation of live animals, animal medical materials; transportation of deceased animals for disposal; raising of animals for food; animal production operations; slaughter and packing plants and associated regulatory and government workforce
- 16. Workers who support sawmills and the manufacture and distribution of fiber and forest products, including, but not limited to timber, paper, and other wood and fiber products
- 17. Employees engaged in the manufacture and maintenance of equipment and other infrastructure necessary to agricultural production and distribution

18. Workers at animal care facilities that provide food, shelter, veterinary and/or routine care and other necessities of life for animals.

Relevant Sector Guidance:

- Food, Beverage, Other Services
- Alimentos, Bebidas y Otros Sitios de Servicios Relacionados
- Food Industry and Food Supply Chain

4. ENERGY

Sector Profile

The Energy Sector consists of widely-diverse and geographically-dispersed critical assets and systems that are often interdependent of one another. This critical infrastructure is divided into three interrelated segments or subsectors—electricity, oil, and natural gas—to include the production, refining, storage, and distribution of oil, gas, and electric power, ~~except for hydroelectric and commercial nuclear power facilities and pipelines.~~ The Energy Sector supplies fuels to the transportation industry, electricity to households and businesses, and other sources of energy that are integral to growth and production across the Nation. In turn, it depends on the Nation’s transportation, information technology, communications, finance, water, and government infrastructures.

Essential Workforce—Electricity industry, if remote working is not possible:

1. Workers supporting the energy sector, regardless of the energy source, segment of the system, or infrastructure the worker is involved in, or who are needed to monitor, operate, engineer, and maintain, ensure, or restore the the reliability, safety, environmental health, physical and cyber security of the energy system, including power generation, transmission, and distribution of electric power, including.

2. Workers supporting the energy sector, regardless of the energy source, needed for construction, manufacturing, transportation and logistics, maintenance, and permitting.
- 3. IT and OT technology for essential energy sector operations including support workers, customer service operations, call centers, utility workers, reliability and emergency response and customer emergency operations; energy management systems, control systems, Supervisory Control and Data Acquisition SCADA systems, and energy sector entity data centers; cybersecurity engineers; and fleet maintenance technicians cybersecurity risk management.
- ~~Workers needed for safe and secure operations at nuclear generation~~
4. Workers at generation, transmission, and electric blackstart facilities Workers providing services related to energy sector fuels and supply chains, supporting the procurement, mining, drilling, processing, refining, manufacturing, refueling, construction, logistics, transportation (including marine transport, terminals, rail and vehicle transport), permitting operation and maintenance, security, waste disposal, storage, and monitoring of support for resources;
5. Workers supporting environmental remediation and monitoring.
6. Workers supporting manufacturing and distribution of equipment, supplies, and parts necessary to maintain production, maintenance, restoration, and service at energy sector facilities across all energy sectors, and regardless of the energy source.
- 7. Workers at Independent System Operators and Regional Transmission Organizations, and Network Operations staff, engineers and technicians to manage the network or operate facilities.
- 8. Workers at Reliability Coordinator (RC), Balancing Authorities (BA), and primary and backup Control Centers (CC), including but not limited to independent system operators, regional transmission organizations, and balancing authorities; and workers involved in energy commodity trading and scheduling.
- ~~Mutual assistance personnel~~
- ~~IT and OT technology staff – for EMS (Energy Management Systems) and Supervisory Control and Data~~
- ~~Acquisition (SCADA) systems, and utility data centers; Cybersecurity engineers; cybersecurity risk management~~
- ~~Vegetation management crews and traffic, which may include workers who support~~
- ~~Environmental remediation/monitoring technicians~~
- ~~Instrumentation, protection, and control technicians~~

Essential Workforce – Petroleum workers:

- ~~Petroleum product storage, pipeline, marine transport, terminals, rail transport, road transport~~
- ~~Crude oil storage facilities, pipeline, and marine transport~~
- ~~Petroleum refinery facilities~~
- ~~Petroleum security operations center employees and workers who support emergency response services~~
- ~~Petroleum operations control rooms/centers~~

~~9. Petroleum drilling, extraction, production, processing, refining, terminal operations, transporting, and retail for use as end-use fuels from outside of the state or local jurisdiction~~

~~10. Retail fuel centers such as gas stations and truck stops, and the distribution systems that support them.~~

~~feedstocks for chemical manufacturing~~

~~1. Onshore and offshore operations for maintenance and emergency response~~

~~1. Retail fuel centers such as gas stations and truck stops, and the distribution systems that support them.~~

~~Essential Workforce – Natural and propane gas workers:~~

- ~~• Natural gas transmission and distribution pipelines, including compressor stations~~
- ~~• Underground storage of natural gas~~
- ~~• Natural gas processing plants, and those that deal with natural gas liquids~~
- ~~• Liquefied Natural Gas (LNG) facilities~~
- ~~• Natural gas security operations center, natural gas operations dispatch and control rooms/centers natural gas emergency response and customer emergencies, including natural gas leak calls~~
- ~~• Drilling, production, processing, refining, and transporting natural gas for use as end-use fuels, feedstocks for chemical manufacturing, or use in electricity generation~~
- ~~• Propane gas dispatch and control rooms and emergency response and customer emergencies, including propane leak calls~~
- ~~• Propane gas service maintenance and restoration, including call centers~~
- ~~• Processing, refining, and transporting natural liquids, including propane gas, for use as end-use fuels or feedstocks for chemical manufacturing~~
- ~~• Propane gas storage, transmission, and distribution centers~~

5. WATER AND WASTEWATER

Sector Profile

The Water and Wastewater Sector is a complex sector composed of drinking water and wastewater infrastructure of varying sizes and ownership types. Multiple governing authorities pertaining to the Water and Wastewater Sector provide for public health, environmental protection, and security measures, among others.

Essential Workforce, if remote working is not practical:

- Employees needed to operate and maintain drinking water and wastewater/drainage infrastructure, including:

- 1. Operational staff at water authorities
- 2. Operational staff at community water systems
- 3. Operational staff at wastewater treatment facilities
- 4. Workers repairing water and wastewater conveyances and performing required sampling or monitoring
- 5. Operational staff for water distribution and testing
- 6. Operational staff at wastewater collection facilities
- 7. Operational staff and technical support for SCADA Control systems
- 8. Chemical disinfectant suppliers for water and wastewater and personnel protection
- 9. Workers that maintain digital systems infrastructure supporting water and wastewater operations

6. TRANSPORTATION AND LOGISTICS

Sector Profile

The Transportation Systems Sector consists of seven key subsectors, or modes:

- Aviation includes aircraft, air traffic control systems, and airports, heliports, and landing strips. Commercial aviation services at civil and joint-use military airports, heliports, and sea plane bases. In addition, the aviation mode includes commercial and recreational aircraft (manned and unmanned) and a wide variety of support services, such as aircraft repair stations, fueling facilities, navigation aids, and flight schools.
- Highway and Motor Carrier encompasses roadway, bridges, and tunnels. Vehicles include trucks, including those carrying hazardous materials; other commercial vehicles, including bicycles, commercial ~~motorcoaches~~motor coaches and school buses; vehicle and driver licensing systems; taxis, transportation services including Transportation Network Companies, and delivery services including Delivery Network Companies; traffic management systems; AND cyber systems used for operational management.
- Maritime Transportation System consists of coastline, ports, waterways, and intermodal landside connections that allow the various modes of transportation to move people and goods to, from, and on the water.
- Mass Transit and Passenger Rail includes terminals, operational systems, and supporting infrastructure for passenger services by transit buses, trolleybuses, monorail, heavy rail—also known as subways or metros—light rail, passenger rail, and vanpool/rideshare.

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- Pipeline Systems consist of pipelines carrying natural gas hazardous liquids, as well as various chemicals. Above-ground assets, such as compressor stations and pumping stations, are also included.
- Freight Rail consists of major carriers, smaller railroads, active railroad, freight cars, and locomotives.
- Postal and Shipping includes large integrated carriers, regional and local courier services, mail services, mail management firms, and chartered and delivery services.

Essential Workforce, if remote working is not practical:

1. Employees supporting or enabling transportation functions, including ~~truck drivers, bus drivers,~~ dispatchers, maintenance and repair technicians, warehouse workers, truck stop and rest area workers, ~~towing and recovery services, roadside assistance workers, intermodal transportation personnel,~~ and workers that maintain and inspect infrastructure ~~(including those that require cross-border travel)~~
2. ~~Employees of firms~~ Working supporting or providing services that enable logistics operations ~~for essential sectors, wholesale and retail sale, including warehousing, cooling, storing, packaging, and distributing products for wholesale or retail sale or use.~~
3. Workers supporting maintenance and operation of essential highway infrastructure, including roads, bridges, and tunnels.
4. Workers of firms providing services, supplies, and equipment that enable warehouse and operations, including cooling, storing, packaging, and distributing products for wholesale or retail sale or use.
5. Mass transit workers ~~providing critical transit services and/or performing critical or routine maintenance to mass transit infrastructure or equipment.~~
6. ~~Taxis,~~ Employees supporting personal and commercial transportation services, including ~~taxis, bicycle services,~~ Transportation Network Companies, and delivery services including Delivery Network Companies
7. Workers responsible for operating dispatching passenger, commuter and freight trains and maintaining rail infrastructure and equipment
8. Maritime transportation ~~and inland waterway~~ workers ~~— to include maintenance and repair — including port authority and commercial facility personnel, dredgers, port workers, mariners, ship crewmembers, ship pilots and tugboat operators, ship supply, chandler, and equipment operators.~~
9. ~~Truck drivers~~ Workers who ~~haul~~ support the operation, inspection, and maintenance of essential dams, locks, and levees.
10. Workers who support the inspection and maintenance of aids to navigation and other government-provided services that ensure continued maritime commerce.
11. Workers supporting transportation of chemicals, hazardous ~~and,~~ medical, waste and recyclable materials to support critical ~~sectors and~~ infrastructure, ~~capabilities, functions, and services.~~

- - 12. Automotive repair and maintenance, and transportation equipment manufacturing and distribution facilities.
 - ▲13. Transportation safety inspectors, including hazardous material inspectors and accident investigator inspectors
 - ▲14. Manufacturers and distributors (to include service centers and related operations) of lighting and communication systems, specialized signage and structural systems, emergency response equipment and support materials, printers, printed materials, packaging materials, pallets, crates, containers, and other supplies needed to support manufacturing, packaging staging and distribution operations
 - 15. Postal, parcel, courier, last-mile delivery, and shipping workers, to include private companies who accept, process, transport, and deliver information and goods.
 - ▲16. Workers who supply equipment and materials for maintenance of transportation equipment.
 - ▲17. Employees who repair and maintain vehicles, aircraft, rail equipment, marine vessels, bicycles, and the equipment and infrastructure that enables operations that encompass movement of cargo and passengers
 - Air transportation employees, including air traffic controllers, ramp personnel, aviation security, and aviation management
 - ▲18. Workers who support the air transportation for cargo and passengers, including operation distribution, maintenance, and operation of cargo by air transportation, including sanitation. This includes air traffic controllers, flight dispatchers, maintenance personnel, ramp workers, fueling agents, flight crews, maintenance airport safety inspectors and engineers, airport operations personnel, aviation and aerospace safety workers, security, commercial space personnel, operations personnel, accident investigators, flight instructors, and other on- and off-airport facilities workers.
 - 19. Workers critical to the manufacturing, distribution, sales, rental, leasing, repair, and maintenance of vehicles and other transportation equipment (including electric vehicle charging stations) and the supply chains that enable these operations, subject to adhering public health guidance issued by CDPH.
 - 20. Workers who support the operation, inspection, and maintenance of essential public works facilities and operations, including bridges, water and sewer main breaks, fleet maintenance personnel, construction of critical or strategic infrastructure, construction material suppliers, traffic signal maintenance, emergency location services for buried utilities, maintenance of digital systems infrastructure supporting public works operations, and other emergent issues
 - 21. Workers who support, such as road and line clearing, to ensure the availability of needed facilities, transportation, energy and communications.

- **7. COMMUNICATIONS AND INFORMATION TECHNOLOGY**

Sector Profile

The Communications Sector provides products and services that support the efficient operation of today's global information-based society. Communication networks enable people around the world to contact one another, access information instantly, and communicate from remote areas. This involves creating a link between a sender (including voice signals) and one or more recipients using technology (e.g., a telephone system or the Internet) to transmit information from one location to another. Technologies are changing at a rapid pace, increasing the number of products, services, service providers, and communication options. The national communications architecture is a complex collection of networks that are owned and operated by individual service providers. Many of this sector's products and services are foundational or necessary for the operations and services provided by other critical infrastructure sectors. The nature of communication networks ~~involve~~involves both physical infrastructure (buildings, switches, towers, antennas, etc.) and cyber infrastructure (routing and

switching software, operational support systems, user applications, etc.), representing a holistic challenge to address the entire physical-cyber infrastructure.

The IT Sector provides products and services that support the efficient operation of today's global information-based society and are integral to the operations and services provided by other critical infrastructure Sectors. The IT Sector is comprised of small and medium businesses, as well as large multinational companies. Unlike many critical infrastructure Sectors composed of finite and easily identifiable physical assets, the IT Sector is a functions-based Sector that comprises not only physical assets but also virtual systems and networks that enable key capabilities and services in both the public and private sectors.

Essential Workforce – Communications, if remote working is not practical:

1. Maintenance of communications infrastructure- including privately owned and maintained communication systems- supported by technicians, operators, call-centers, wireline and wireless providers, cable service providers, satellite operations, ~~undersea cable landing stations,~~ Internet Exchange Points, Network Access Points, back haul and front haul facilities, and manufacturers and distributors of communications equipment.
2. Workers performing functions related to undersea cable infrastructure and support facilities, including cable landing sites, beach manhole vaults and covers, submarine cable depots, and submarine cable ship facilities
3. Government and private sector employees supporting Department of Defense internet and communications facilities.
4. Workers who support radio, television, and media service, including, but not limited to front line news reporters, studio, and technicians for newsgathering ~~and,~~ reporting, and publishing news.
5. ~~Workers at Independent System Operators and Regional Transmission Organizations, and~~ Network Operations staff, engineers and/or technicians to include IT managers and staff, HVAC & electrical engineers, security personnel, software and hardware engineers, and database administrators that manage the network or operate facilities
6. ~~Engineers, technicians and associated personnel~~Workers responsible for infrastructure construction and restoration, including contractors for construction and engineering of fiber optic cables, buried conduit, small cells, other wireless facilities, and other communications sector-related infrastructure. This includes construction of new facilities and deployment of new technology required to address congestion or customer usage on remote services.
7. Installation, maintenance and repair technicians that establish, support or repair service as needed.
8. Central office personnel to maintain and operate central office, data centers, and other network office facilities, and critical support personnel assisting front line employees
9. Customer service and support staff, including managed and professional services as well as remote providers of support to transitioning employees to set up and maintain home offices, who interface with customers to manage or support service environments and security issues, including payroll, billing, fraud, logistics and troubleshooting
10. Workers providing electronic security, fire, monitoring, and life safety services, and who ensure physical security, cleanliness, and the safety of facilities and personnel, including those who

provide temporary licensing waivers for security personnel to work in other States or Municipalities.

- 11. Dispatchers involved with service repair and restoration
- 12. Retail customer service personnel at critical service center locations for onboarding customers, distributing and repairing equipment and other supply chain personnel, to support individuals' remote emergency communications needs;
- 13. External Affairs personnel to assist in coordinating with local, state, and federal officials to address communications needs supporting COVID-19 response, public safety, and national security.
- 14. Workers responsible for ensuring that persons with disabilities have access to and the benefits of various communications platforms, including those involved in the provision of telecommunication relay services, closed captioning of broadcast television for the deaf, video relay services for deaf citizens who prefer communication via American Sign Language over text, and audio-description for television programming.

Essential Workforce - Information Technology, if remote working is not practical:

- Workers who support command centers, including, but not limited to Network Operations
 - 15. Command CenterCenters, Broadcast Operations Control Center and Security Operations Command CenterCenters
 - 16. Data center operators, including system administrators, HVAC & electrical engineers, security personnel, IT managers and purchasers, data transfer solutions engineers, software and hardware engineers, and database administrators
 - 17. ClientWorkers who support client service centers, field engineers, and other techniciansworkers supporting critical infrastructure, as well as manufacturers and supply chain vendors that provide hardware and software, andsupport services, research and development, information technology equipment (to include microelectronics and semiconductors)), and HVAC and electrical equipment for critical infrastructure and test labs and certification agencies that qualify such equipment for critical infrastructure.
- Workers ~~responding~~needed to pre-empt and respond to cyber incidents involving critical infrastructure, ~~including medical facilities, SLTT governments and federal facilities, energy and utilities, and banks and financial institutions, and other critical infrastructure categories,~~ and personnel
 - 18. Workersentities supporting the provisionfunctioning of critical infrastructure sectors
 - 19. Suppliers, designers, transporters and other workers supporting the manufacture, distribution, and construction of essential global, national and local infrastructure for computing services (incl.including cloud computing services and teleworking capabilities), business infrastructure, financial transactions, web-based services, and critical manufacturing
 - 20. Workers supporting communications systems and, information technology-used by law enforcement, public safety, medical, energy and other critical industries, and work from home solutions
- ~~Support required for continuity of services, including janitorial/cleaning personnel~~

21. OTHER COMMUNITY-BASED Employees required to support Software as a Service businesses that enable remote working, performance of business operations, distance learning, media services, and digital health offerings, or required for technical support crucial for business continuity and connectivity.

8. GOVERNMENT OPERATIONS AND OTHER COMMUNITY-BASED ESSENTIAL FUNCTIONS

Essential Workforce, if remote working is not practical.

- ▲1. Critical government workers, as defined by the employer and consistent with Continuity of Operations Plans and Continuity of Government plans.
- ▲2. County workers responsible for determining eligibility for safety net benefits
- ▲3. The Courts, consistent with guidance released by the California Chief Justice
- 4. Workers who support administration and delivery of unemployment insurance programs, income maintenance, employment service, disaster assistance, workers' compensation insurance and benefits programs, and pandemic assistance
- ▲5. Workers to ensure continuity of building functions, including but not limited to security and environmental controls, the manufacturing and distribution of the products required for these functions, and the permits and inspection for construction.
- ~~▲1. Security staff to maintain building access control and physical security measures~~
- ▲6. Elections personnel
- ▲7. Federal, State, and Local, Tribal, and Territorial employees who support Mission Essential Functions and communications networks
- ▲8. Trade Officials (FTA negotiators; international data flow administrators)
- ▲9. Weather forecasters
- ▲10. _____ Workers that maintain digital systems infrastructure supporting other critical government operations
- ~~● Workers at operations centers necessary to maintain other essential functions~~
 - ▲11. _____ Workers who support necessary credentialing, vetting and licensing operations for transportationcritical sector workers and operations.
 - ▲12. _____ Workers who are critical to facilitating trade in support of the national, state, and local emergency response supply chain
 - ▲13. _____ Workers supporting public and private childcare establishments, pre-K establishments, K-12 schools, colleges, and universities for purposes of distance learning, provision of school meals, or care and supervision of minors to support essential workforce across all sectors
 - 14. Staff at government offices who perform title search, notary, and recoding services in support of mortgage and real estate services and transactions;
 - ▲15. _____ Workers and instructors supporting academies and training facilities and courses for the purpose of graduating students and cadets that comprise the essential workforce for all identified critical sectors
- ~~● Hotel Workers where hotels are usedClergy for COVID-19 mitigation and containment measures, including measures to protect homeless populations.~~
- ~~● Construction Workers who support the construction, operation, inspection, and maintenance of construction sites and construction projects (including housing construction)~~
- ~~● Workers such as plumbers, electricians, exterminators, and other service providers who provide services that are necessary to maintaining the safety, sanitation, and essential operation of construction sites and construction projects (including those that support such projects to ensure~~

the availability of needed facilities, transportation, energy and communications; and support to ensure the effective removal, storage, and disposal of solid waste and hazardous waste)

- ~~Commercial Retail Stores, that supply essential sectors, including convenience stores, pet supply stores, auto supplies and repair, hardware and home improvement, and home appliance retailers~~
- ~~Workers supporting the entertainment industries, studios, and other related establishments, provided they follow covid-19 public health guidance around social distancing.~~
- ~~1. Workers critical to operating Rental Car companies that facilitate continuity of operations for essential workforces, and other essential travel~~
- ~~1. Workers that provide or determine eligibility for food, shelter, in-home supportive services, child welfare, adult protective services and social services, and other necessities of life for economically disadvantaged or otherwise needy individuals (including family members)~~
- ~~1. Professional services, such as legal or accounting services, when necessary to assist in compliance with legally mandated activities and critical sector services~~
- 16. Faith support and faith-based services that are provided through streaming or other technology technologies that support physical distancing and state public health guidelines.
- ~~Laundromats and laundry services~~

17. Human services providers, especially for at risk populations, including home delivered meal providers for older adults, people with disabilities, and others with chronic health conditions; home-maker services for frail, homebound, older adults; personal assistance services providers to support activities of daily living for older adults, people with disabilities, and others with chronic health conditions who live independently in the community with supports and services; home health providers who deliver health care services for older adults, people with disabilities, and others with chronic health conditions who live independently in the community with supports and services.

18. Government entities, and contractors that work in support of local, state, and federal public health and medical mission sets, including but not limited to supporting access to healthcare and associated payment functions, conducting public health functions, providing medical care, supporting emergency management, or other services necessary for supporting the COVID-19 response.

Relevant Sector Guidance:

- Schools and institutions of higher education
- Guidance for schools (PDF)
- Directrices para las escuelas sobre el nuevo coronavirus o COVID-19 (PDF)
- Guidance for colleges and universities
- Directrices para las instituciones de educación superior sobre el nuevo coronavirus o COVID-19
- Guidance for K-12 Schools: Distance Learning, School Meals, Child Care and Student Supervision
- Guidance for Using Disinfectants at Schools and Child Cares
- Recordatorios para el uso de desinfectantes en las escuelas y guarderías

- Community care facilities, including assisted living facilities and child care

9. CRITICAL MANUFACTURING

Sector Profile

The Critical Manufacturing Sector identifies several industries to serve as the core of the sector:

Primary

Primary Metals Manufacturing, Machinery Manufacturing, Electrical Equipment, Appliance, and Component Manufacturing, Transportation Equipment Manufacturing Products made by these manufacturing industries are essential to many other critical infrastructure sectors.

Essential Workforce, if remote working is not practical

1. Workers necessary for the manufacturing of metals, industrial minerals, semiconductors, materials and products needed for medical supply chains, transportation, energy, communications, food and agriculture, chemical of the critical infrastructure sectors.
2. Workers necessary for the manufacturing, nuclear facilities, the operation of dams, water of materials and products needed to manufacture medical equipment and wastewater treatment, emergency personal protective equipment
3. Workers necessary for mining and production of critical minerals, materials and associated essential supply chains, and workers engaged in the manufacture and maintenance of equipment and other infrastructure necessary for mining production and distribution.
4. Workers who produce or manufacture parts or equipment that supports continued operations for any essential services, and the defense industrial base, and increase in remote workforce, including computing and communication devices, semiconductors, and equipment such as security tools for Security Operations Centers (SOCs) or data centers.

HAZARDOUS MATERIALS

Essential Workforce

- ~~1. Workers at nuclear facilities, workers managing medical waste, workers managing waste from pharmaceuticals and medical material production, and workers at laboratories processing test kits~~
 - ~~1. Workers who support hazardous materials response and cleanup~~
 - ~~1. Workers who maintain digital systems infrastructure supporting hazardous materials management operations~~
5. Workers manufacturing or providing parts and equipment that enable the maintenance and continued operation of essential businesses and facilities.

10. FINANCIAL SERVICES

Sector Profile

The Financial Services Sector includes thousands of depository institutions, providers of investment products, insurance companies, other credit and financing organizations, and the providers of the critical financial utilities and services that support these functions. Financial institutions vary widely in size and presence, ranging from some of the world's largest global companies with thousands of employees and many billions of dollars in assets, to community banks and credit unions with a small number of employees serving individual communities. Whether an individual savings account, financial derivatives, credit extended to a large organization, or investments made to a foreign country, these products allow customers to: Deposit funds and make payments to other parties; Provide credit and liquidity to customers; Invest funds for both long and short periods; Transfer financial risks between customers.

Essential Workforce, if remote working is not practical:

- ▲1. Workers who are needed to process and maintain systems for processing financial transactions and services ~~(e.g., including~~ payment, clearing, and settlement; wholesale funding; insurance services; and capital markets activities)
- 2. Workers who are needed to maintain orderly market operations to ensure the continuity of financial transactions and services.
- ▲3. Workers who are needed to provide business, commercial, and consumer access to banking and non-bank financial and lending services, including ATMs, lending money transmission, and to move currency, checks, securities, and payments ~~(e.g., armored cash carriers)~~
- ▲4. Workers who support financial operations, such as those staffing call, data and security operations centers, managing physical security, or providing accounting services.
- 5. Workers supporting production and distribution of debit and credit cards.
- 6. Workers providing electronic point of sale support personnel for essential businesses and workers.

11. CHEMICAL & HAZARDOUS MATERIALS

Sector Profile

The Chemical Sector—composed of a complex, global supply chain—converts various raw materials into diverse products that are essential to modern life. Based on the ~~end~~ product produced, the sector can be divided into five main segments, each of which has distinct characteristics, growth dynamics, markets, new developments, and issues: Basic chemicals; Specialty chemicals; Agricultural chemicals; Pharmaceuticals; Consumer products.

Essential Workforce, if remote working is not practical:

- 1. Workers supporting the chemical and industrial gas supply chains, including workers at chemical manufacturing plants, workers in laboratories, workers at distribution facilities, workers who transport basic raw chemical materials to the producers of industrial and consumer goods, including hand sanitizers, food and food additives, pharmaceuticals, textiles, building materials, plumbing, electrical and paper products.
- 2. Workers supporting the safe transportation of chemicals, including those supporting tank truck cleaning facilities and workers who manufacture packaging items
- 3. Workers supporting the production of protective cleaning and medical solutions, personal protective equipment, disinfectants, and packaging that prevents the contamination of food, water, medicine, among others essential products
- 4. Workers supporting the operation and maintenance of facilities (particularly those with high risk chemicals and/ or sites that cannot be shut down) whose work cannot be done remotely and requires the presence of highly trained personnel to ensure safe operations, including plant contract workers who provide inspections
- 5. Workers who support the production and transportation of chlorine and alkali manufacturing, single-use plastics, and packaging that prevents the contamination or supports the continued manufacture of food, water, medicine, and other essential products, including glass container manufacturing
- 6. Workers at nuclear facilities, workers managing medical waste, workers managing waste from pharmaceuticals and medical material production, and workers at laboratories processing test kits
- 7. Workers who support hazardous materials response and cleanup
- 8. Workers who maintain digital systems infrastructure supporting hazardous materials management operations
- 9. Workers who support the removal, storage, and disposal of residential and commercial solid waste and hazardous waste, including landfill and recycling operations.

12. DEFENSE INDUSTRIAL BASE

The Defense Industrial Base Sector is the worldwide industrial complex that enables research and development, as well as design, production, delivery, and maintenance of military weapons systems, subsystems, and components or parts, to meet U.S. military requirements. The Defense Industrial Base partnership consists of Department of Defense components, Defense Industrial Base companies and their subcontractors who perform under contract to the Department of Defense, companies providing incidental materials and services to the Department of Defense, and government-owned/~~contractor-operated~~ contractor-operated and government-owned/government-operated facilities. Defense Industrial Base companies include domestic and foreign entities, with production assets located in many countries. The sector provides products and services that are essential to mobilize, deploy, and sustain military operations.

Essential Workforce, if remote working is not practical:

1. ~~Workers who support the essential services required to meet national security commitments to the federal government and U.S. Military. These individuals, include, including,~~ but are not limited to, space and aerospace; workers, nuclear matters workers, mechanical and software engineers, (various disciplines), manufacturing and production workers; IT support; security staff; security personnel; intelligence support, aircraft and weapon system mechanics and maintainers ~~and~~ sanitary workers who maintain the hygienic viability of necessary facilities.
2. Personnel working for companies, and their subcontractors, who perform under contract or subcontract to the Department of Defense providing materials(DoD) and services to the Department of Defense, and Energy (DoE) (on nuclear matters), as well as personnel at government-owned/contractor-operated and facilities, and who provide materials and services to the DoD and DoE (on nuclear matters), including support for weapon systems, software systems and cybersecurity, defense and intelligence communications, surveillance, sale of U.S. defense articles and services for export to foreign allies and partners (as authorized by the U.S. government), and space systems and other activities in support of our military, intelligence, and space forces.

13. INDUSTRIAL, COMMERCIAL, RESIDENTIAL, and SHELTERING FACILITIES AND SERVICES

Essential Workforce, if remote working is not practical:

1. Construction Workers who support the construction, operation, inspection, and maintenance of construction sites and construction projects (including housing, commercial, and mixed-use construction); and workers who support the supply chain of building materials from production through application/installation, including cabinetry, fixtures, doors, cement, hardware, plumbing, electrical, heating/cooling, refrigeration, appliances, paint/coatings, and employees who provide services that enable repair materials and equipment for essential functions.
2. Workers such as plumbers, electricians, exterminators, and other service providers who provide services that are necessary to maintaining the safety, sanitation, construction material sources, and essential operation of construction sites and construction projects (including those that

- support such projects to ensure the availability of needed facilities, transportation, energy and communications; and support to ensure the effective removal, storage, recycling and disposal of solid waste and hazardous waste)
3. Workers such as plumbers, electricians, exterminators, and other service providers who provide services that are necessary to maintaining the safety, sanitation, and essential operation of residences, businesses, and buildings such as hospitals and senior living facilities, including any facility supporting COVID-19 response.
 4. Workers who support the supply chain of building materials from production through application and installation, including cabinetry, fixtures, doors, cement, hardware, plumbing (including parts and services), electrical, heating and cooling, refrigeration, appliances, paint and coatings, and workers who provide services that enable repair materials and equipment for essential functions.
 5. Workers in hardware and building materials stores, consumer electronics, technology and appliances retail, and related merchant retailers, wholesalers and distributors that support essential workforce functions where sales and operations cannot be conducted online
 6. Warehouse operators, including vendors and support personnel critical for business continuity (including heating, ventilation, and air conditioning (HVAC) and electrical engineers, security personnel, and janitorial staff), e-commerce or online commerce, and customer service for essential functions.
 7. Workers supporting the operations of commercial buildings that are critical to safety, security, and the continuance of essential activities, such as on-site property managers, building engineers, security staff, fire safety directors, janitorial personnel, and service technicians (e.g., mechanical, HVAC, plumbers, electricians, and elevator).
 8. Workers supporting ecommerce through distribution, warehouse, call center facilities, and other essential operational support functions, that accept, store, and process goods, and that facilitate their transportation and delivery
 9. Workers distributing, servicing, repairing, installing residential and commercial HVAC systems, boilers, furnaces and other heating, cooling, refrigeration, and ventilation equipment.
 10. Workers managing or servicing hotels or other commercial and residential buildings that are used for COVID-19 mitigation and containment measures, treatment measures, provide accommodation for essential workers, or providing housing solutions, including measures to protect homeless populations.
 11. Workers responsible for the leasing of residential and commercial properties to provide individuals and families with ready access to available housing.
 12. Residential and commercial real estate workers, limited to scheduled property viewings to a potential buying party. This does not extend to open-house viewings, nor viewings with more than one buying party at a time.
 13. Professional services, such as legal or accounting services, when necessary to assist in compliance with legally mandated activities and critical sector services
 14. Workers responsible for handling property management, maintenance, and related service calls who can coordinate the response to emergency “at-home” situations requiring immediate attention, as well as facilitate the reception of deliveries, mail, and other necessary services.
 15. Workers supporting the entertainment industries, studios, and other related establishments, provided they follow covid-19 public health guidance around physical distancing.

16. Workers that provide or determine eligibility for food, shelter, in-home supportive services, child welfare, adult protective services and social services, and other necessities of life for economically disadvantaged or otherwise needy individuals (including family members)
17. ~~-owned/government-operated facilities~~Workers performing services in support of the elderly and disabled populations who coordinate a variety of services, including health care appointments and activities of daily living.
18. Workers who provide support to vulnerable populations to ensure their health and well-being including family care providers.
19. Workers providing dependent care services, particularly those whose services ensure essential workers can continue to work.
20. Workers who support food, shelter, and social services, and other necessities of life for economically disadvantaged or otherwise needy individuals, such as those residing in shelters.
21. Workers in laundromats, laundry services, and dry cleaners.
22. Workers providing disinfection services, for all essential facilities in essential sectors
23. Workers necessary for the installation, maintenance, distribution, and manufacturing of water and space heating equipment and its components.
24. Support required for continuity of services, including commercial disinfectant services, janitorial/cleaning personnel, and support personnel functions that need freedom of movement to access facilities in support of front-line employees.

Relevant Sector Guidance:

- Cleaning & Waste Management for Residences 2/2020
- Essential/Emergency Personnel Providing Critical In-Home Services
- Home cleaning with COVID-19 positive individuals
- Recommended Strategic Approaches for COVID-19 Response for Individuals Experiencing Homelessness
- Flow Chart: COVID-19 Recommended Protocol for People Experiencing Homelessness
- Homeless Assistance Providers
- Immigrant Communities
- Las Comunidades de Inmigrantes
- Pets & People