

- 29 ▶ highlights that technology solutions, including information and communications
- 30 technology and zero emission locomotives, can further reduce rail emission
- 31 impacts;
- 32 ▶ addresses funding and innovative procurement solutions;
- 33 ▶ encourages the phased replacement of existing locomotives used in railroad and
- 34 industrial plant switching services in nonattainment areas in the state with zero
- 35 emission locomotives; and
- 36 ▶ encourages the transition of rail transportation in general to zero emission
- 37 locomotives.

38 **Special Clauses:**

39 None



41 *Be it resolved by the Legislature of the state of Utah, the Governor concurring therein:*

42 WHEREAS, Utah continuously demonstrates the state's commitment to and interest in
43 the state's air quality;

44 WHEREAS, good air quality is a vital component of the economy and human health in
45 Utah and research conducted by Utah universities shows the harmful impacts of air pollution
46 on human health, with the greatest negative impact on the health of children, the elderly, and
47 those with compromised immune systems;

48 WHEREAS, for example, exposure to direct small particulate matter exacerbates
49 asthma, increases the risk of cancer, and leads to acute respiratory symptoms, bronchitis,
50 chronic obstructive pulmonary disease, heart attacks, nervous system effects, lost work days,
51 and premature death;

52 WHEREAS, there is now a broad range of technologically and economically viable
53 solutions to significantly reduce air pollution and ensure that future economic and population
54 growth does not compromise air quality;

55 WHEREAS, embracing zero emission technologies will help grow our state's robust
56 clean technology sector;

57 WHEREAS, as of 2017, railroad transportation contributed 9.2% of NOx and 1.4% of
58 the PM2.5 along the Wasatch Front;

59 WHEREAS, as of 2017, the Division of Air Quality found that locomotives used for
60 short line, industrial plant, and switch engine operations contributed 3.4% of NOx and 0.16%
61 of PM2.5 of the total Wasatch Front inventory of emissions, equivalent to approximately 1,828
62 tons of NOx and 19 tons of PM2.5;

63 WHEREAS, in addition to significant numbers of heavy haul freight locomotives
64 operating in and through the state, as of 2017 there were approximately 63 short line
65 locomotives, industrial plant locomotives, or switch engines operating in Utah;

66 WHEREAS, the majority of the short line locomotives, industrial plant locomotives,
67 and switch engines operating in Utah are legacy platforms certified to the United States
68 Environmental Protection Agency as meeting Tier 0 or Tier 0+ emission standards, and almost
69 all emissions from these locomotives occur within two of Utah's PM2.5 nonattainment areas
70 based on the United States National Ambient Air Quality Standards;

71 WHEREAS, under the federal Clean Air Act, an area where air pollution levels
72 persistently exceed a National Ambient Air Quality Standard may be designated as a
73 "nonattainment" area by the United States Environmental Protection Agency;

74 WHEREAS, designation as a nonattainment area requires the development of a State
75 Implementation Plan with increasing mandatory requirements if the area does not return to
76 attainment within prescribed timelines, and may result in the imposition of a Federal
77 Implementation Plan and sanctions that could impact the availability and use of federal
78 highway funds;

79 WHEREAS, the Utah Department of Transportation, other agencies of the state, and the
80 Utah Inland Port Authority, a political subdivision of the state, can play a vital role in
81 accelerating the modal shift of freight traffic to rail, helping to meet health and air quality
82 goals;

83 WHEREAS, the Utah Inland Port Authority anticipates assisting in the reduction of
84 trucks from the road and the modal shift to rail, while using the regulatory sandbox to test new

85 freight movement and cargo handling equipment at the inland port to increase use of zero
86 emission vehicles;

87 WHEREAS, to complement accelerating this modal shift to rail, a broad spectrum of
88 technologies, including information and communications technologies that enable more
89 efficient rail operation reducing fuel use and emissions, and entirely new locomotive power
90 technologies such as hydrogen fuel cell-electric and battery-electric, must be encouraged and
91 supported to further decrease total freight section emissions, including freight rail emissions;

92 WHEREAS, funding support and innovative procurement solutions made available
93 through the Utah Department of Transportation and the Utah Inland Port Authority can assist
94 private sector operators of short line locomotives, industrial plant locomotives, and switch
95 engines with transitioning to zero emission technologies, including for freight rail, that can
96 materially increase the state's air quality; and

97 WHEREAS, substantial federal funding is expected to be available to support this
98 transition, and the Utah Department of Transportation and the Utah Inland Port Authority
99 should maximize their efforts to secure the federal funding to facilitate deployment of zero
100 emission technologies, including freight rail, that can materially increase the state's air quality:

101 NOW, THEREFORE, BE IT RESOLVED that the Legislature of the state of Utah, the
102 Governor concurring therein, encourages the introduction of new zero emission locomotives
103 operated by short line locomotives, industrial plant locomotives, and switch engines in
104 nonattainment areas, a continued shift of freight transportation growth to rail to help meet the
105 state's air quality goals, phasing out legacy locomotive engines in short line, industrial plant,
106 and switch engine rail service in nonattainment areas in the state, and phasing in the use of zero
107 emission engines to 100% use by short line locomotives, industrial plant locomotives, and
108 switch engines by 2050.

109 BE IT FURTHER RESOLVED that the Legislature and the Governor encourage, in
110 addition to short line locomotives, industrial plant locomotives, and switch engines all rail
111 transition to zero emission technologies, including commuter rail, passenger rail, and long haul
112 freight rail.

