Draft of Resolution Requesting the Federal Government to Establish a Program to Restore the Arctic sea ice and Arctic Region

Whereas, the City of Cupertino has made significant progress in reducing their greenhouse gas emissions. We are acknowledging that the current levels of greenhouse gases have already put the collapse of the Arctic ice and Arctic Region in danger or collapse.

Whereas, response of the global community has been tragically inadequate to the warnings of climate scientists to reduce and eliminate the emissions of greenhouse gases that increase global temperatures, causing sea level rise and melting of sea and land ice.

Whereas, the increase in global temperatures has caused the decline of Arctic sea-ice cover by more than 75% over the last 40 years. This decline has resulted in major disruptions throughout the globe and threatens the future of mankind unless rectified.

Whereas, Patricia Espinosa, Executive Secretary of UN Climate Change said has said at the 2019 COP25 conference: "This year, we have seen accelerating climate change impacts, including increased droughts, storms and heat waves, with dire consequences for poverty eradication, human health, migration and inequality.

"The world's small window of opportunity to address climate change is closing rapidly. We must urgently deploy all the tools of multilateral cooperation to make COP25 the launchpad for more climate ambition to put the world on a transformational path towards low carbon and resilience."

Whereas the decline of the Arctic sea-ice and snow cover will continue even under the most aggressive greenhouse-gas emission reduction targets.

Whereas, the Arctic sea-ice and snow cover decline puts at risk <u>several vital ocean and climate</u> <u>systems</u> critical for the human race to produce adequate food, acquire clean water, avoid infectious diseases, and establish stable habitat. The following global systems are in jeopardy:

- Arctic Sea-Ice & Snow Reflectivity which has been an important moderator of global warming, Containment of frozen methane (a powerful greenhouse gas) in the Arctic seabed,
- Atlantic Meridional Overturning Circulation (a probable stabilizing factor in global weather patterns and sea levels),
- Prevention of the Melting of Tundra Permafrost causing the release greenhouse gases,
- Containment of the Greenland Ice Sheet, and the

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• Stability of the Polar Jet Stream to inhibit extreme global weather events.

Whereas, the above systems are critical to avoiding destructive storms, hurricanes, and cyclones; precipitous sea level rise; droughts; food sources; heat waves; spread of diseases; and other hazardous events.

Whereas, this dramatic loss of Arctic sea-ice is a destabilizing force in the Arctic that threaten our national security in several ways:

- Superiority of our presence in the Arctic Region
- Valuable military installations due to sea level rise and intensified storms (including Norfolk Naval Base),
- Weapons performance and munitions stability due to rising temperatures, and
- Exceeding the capacity of our military establishment to address environmental and societal collapses throughout the world.

Whereas, the United States has been a leader in scientific research in the Arctic region.

Whereas, the United States has been a front-runner over the last century in the development, manufacturing, and implementing many life-improving innovations. These innovations include airplanes, electric lights, polio vaccines, antibiotics, television, internet, telecommunications, space exploration, and other innovations.

Be it Resolved then, as urgently stated by the Executive Secretary of the UN Climate Change, that the United States in concert with other countries embark on a sizeable program of research, prototyping, and eventually implementing measures to stabilize the Arctic sea-ice and Tundra Region. Such a program should consider, but not limit itself, to distribution on the sea-ice of highly reflective microspheres, marine cloud brightening, artificial enhancement of Arctic ice thickening, and others protective measures.