

116TH CONGRESS  
1ST SESSION

# S. RES. \_\_\_\_\_

Expressing the need for immediate climate action in response to the report of the United Nations Intergovernmental Panel on Climate Change entitled “Special Report on the Ocean and Cryosphere in a Changing Climate”.

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IN THE SENATE OF THE UNITED STATES

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Mr. MARKEY submitted the following resolution; which was referred to the Committee on \_\_\_\_\_

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## RESOLUTION

Expressing the need for immediate climate action in response to the report of the United Nations Intergovernmental Panel on Climate Change entitled “Special Report on the Ocean and Cryosphere in a Changing Climate”.

Whereas every person on the planet benefits from a healthy ocean and a stable cryosphere;

Whereas the ocean covers more than 70 percent of the surface of the Earth;

Whereas the cryosphere includes the frozen components of the system of the Earth, including snow, glaciers, ice sheets, ice shelves, icebergs, sea ice, and permafrost;

Whereas glaciers, ice sheets, and permanent snow hold approximately 69 percent of the freshwater on Earth;

Whereas the ocean generates the oxygen that humans breathe, regulates the climate and weather patterns, supplies food, is a source of cultural value, supports tourism and trade, and is an untapped renewable energy resource;

Whereas the ocean contributes an estimated \$1,500,000,000,000 in value added to the global economy, including a United States fishing industry valued at \$212,000,000,000, which is a critical economic driver in the United States;

Whereas the ocean and cryosphere support biodiversity and regulate the global exchange of water, energy, and carbon;

Whereas, on September 25, 2019, the United Nations Intergovernmental Panel on Climate Change released a report entitled “Special Report on the Ocean and Cryosphere in a Changing Climate” (in this preamble referred to as the “SROCC”);

Whereas the SROCC is the most comprehensive scientific assessment of the effects of climate change on the ocean and coasts and on polar and mountain ecosystems to date;

Whereas more than 100 scientists from 36 countries produced the SROCC, and the SROCC was reviewed by thousands of scientific experts from around the world;

Whereas, according to the SROCC—

(1) since 1970, the ocean has taken up more than 90 percent of excess heat in the climate system, and the ocean has warmed as a direct result of anthropogenic greenhouse gas emissions;

(2) from 1982 to 2016, marine heatwaves very likely doubled in frequency, and marine heatwaves are very

likely to become longer-lasting, more intense, and more extensive;

(3) since 1993, the rate of ocean warming has more than doubled;

(4) since the 1980s, the ocean has very likely absorbed up to 30 percent of total anthropogenic carbon, causing the ocean to become more acidic;

(5) the ocean is losing oxygen at an unprecedented rate, and oxygen loss will very likely emerge over 59 to 80 percent of the ocean surface by 2031 through 2050;

(6) since the 1980s, harmful algal blooms have expanded and increased in frequency in coastal environments as a result of ocean warming, acidification, and oxygen loss;

(7) in some regions, fish and shellfish stocks are already on the brink of collapsing;

(8) environmental stressors, such as ocean acidification, oxygen loss, and warming ocean temperatures, are expected to further compromise the abundance, productivity, and food-web interactions of species;

(9) the decrease in biodiversity and decline and shifts in distribution of fisheries will affect the livelihoods and food security of coastal communities;

(10) warmer ocean temperatures are fueling extreme weather events;

(11) rare extreme sea level events are expected to occur frequently by 2050;

(12) in the absence of significant adaptation efforts, extreme events associated with sea level rise, such as erosion, flooding, and salinization, are expected to significantly increase;

(13) during the 20th century, nearly 50 percent of coastal wetlands were lost, and 20 to 90 percent of coast-

al wetlands are projected to be lost by 2100 as a result of sea level rise and habitat degradation;

(14) coastal blue carbon ecosystems can contribute to climate mitigation by storing carbon;

(15) river runoff in snow-dominated and glacier-fed basins are projected to change in response to projected snow cover and glacier decline;

(16) glacial and snow meltwater reductions have resulted in reduced water supply, declined agriculture productivity, and increased wildfires in mountain regions and the Arctic;

(17) tourism and outdoor recreation activities have been negatively affected by the cryosphere decline;

(18) Arctic sea ice is declining in all months of the year and summers free of sea ice are increasingly likely under 2 degrees Celsius of global warming;

(19) in the last 2 decades, Arctic surface air temperatures have likely increased by more than double the global average, resulting in more sea ice and snow cover loss; and

(20) widespread thaw and degradation of permafrost is projected to occur this century and is anticipated to release tens to hundreds of billions of tons of carbon dioxide and methane into the atmosphere;

Whereas the United States is already facing the consequences of inaction on climate change;

Whereas communities of color, indigenous communities, and low-income communities often face the disproportionate effects of inaction on climate change;

Whereas reducing greenhouse gas emissions, transitioning to a clean energy economy, and investing in climate adaptation efforts can support good-paying jobs;

Whereas, in 2018, the United Nations Intergovernmental Panel on Climate Change released a special report entitled “Global Warming of 1.5°C”, which found that to limit global warming to 1.5 degrees Celsius, net global greenhouse gas emissions must be reduced to 45 percent below 2010 levels by 2030 and 100 percent below 2010 levels, or net zero, by 2050; and

Whereas, as Congress enacts policies to put the United States on a path to net-zero emissions, there is an opportunity and need for the ocean to be part of the climate solution: Now, therefore, be it

1       *Resolved*, That the Senate—

2           (1) recognizes and accepts the findings of the  
3       report of the United Nations Intergovernmental  
4       Panel on Climate Change entitled “Special Report  
5       on the Ocean and Cryosphere in a Changing Cli-  
6       mate”;

7           (2) commits to supporting ocean-centric solu-  
8       tions to the climate crisis in conjunction with poli-  
9       cies to reduce greenhouse gas emissions; and

10          (3) affirms that immediate action is needed to  
11       reduce greenhouse gas emissions to protect the  
12       health of the ocean and the stability of the  
13       cryosphere.