

INTEL CLIMATE CHANGE POLICY STATEMENT

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Intel Corporation believes that global climate change is a serious environmental, economic and social challenge that warrants an equally serious response by governments and the private sector. By its nature, climate change is a global problem that defies simple "silver bullet" solutions or contributions by a narrow group of countries or a few industry sectors. Addressing climate change requires broad leadership by both the public and private sectors.

Intel exercises leadership both in reducing our own footprint and in working with others to influence the development of sound public policies. We take actions to measure, reduce and report on our own direct climate "footprint"—the emissions resulting from our own operations, our supply chain, and the use of our products—and proactively invest in energy conservation and renewable energy. We also focus on increasing the positive impact of our "handprint"—the ways in which Intel technologies help others reduce their climate and energy footprints. We are committed to transparently reporting on our climate change and other policy-related activities, including our political contributions, oversight processes, and engagement with trade associations. More information concerning our policies, goals, actions and results can be found in our annual Corporate Responsibility Report at: intel.com/responsibility.

Intel's Climate Policy Advocacy Principles

Intel actively participates in processes to shape climate policy guided by the following principles:

- ICT-enabled energy efficiency: Information and communications technology (ICT) has the opportunity to be a significant part of the climate solution by using its collective "handprint" to help other industries reduce their own footprints. This can be accomplished through the "intelligent efficiency" benefits of investments in smart technologies. Examples of "smart" ICT-enabled solutions include building energy management systems, IoT sensors that can reduce the energy consumption of industrial processes and electric grid controllers that enable greater incorporation of renewable power. To promote this solution role, government policies should emphasize promoting ICT-enabled energy efficiency, since studies have shown this is where the greatest and least-expensive climate progress can be made.
- <u>Science-based approach</u>: Climate policy should be based upon the latest and best available scientific
 information. The UN-affiliated Intergovernmental Panel on Climate Change (IPCC) is the primary global
 source on consensus science on climate change, its causes and effects. We follow the lead of IPCC which has
 called for the 2050 global warming goal to be reduced from 2.0 degrees Celsius to 1.5 degrees Celsius in
 order to avoid the worst potential impacts of warming.
- <u>US engagement in the international policy process</u>: Intel believes the US government should be actively engaged in the development of international climate change policies, through the UN negotiating process and other multi- and bi-lateral venues, to ensure any resulting international agreements are realistic and pragmatic. We strongly support continued US participation in the international process, including reentry into the Paris Accord process. In 2017, Intel joined hundreds of businesses, investors, universities, local officials, and state governments, through the "We Are Still In" project, in pledging to continue to support the Paris Accord and pursue ambitious climate goals.

- <u>Shared solutions</u>: A central tenet of international climate policy negotiations should be ensuring that all countries—developing and developed—contribute by implementing programs to mitigate climate change. For equity, economic and political reasons, the contributions of different countries do not need to be the same in design or equal in scope. However, all must contribute appropriately to mitigate climate change to acceptable levels at a reasonable cost.
- Mitigation and adaptation: Scientists believe that some degree of climate change is inevitable given past greenhouse gas emissions released into the atmosphere. For this reason, governments, industry and civil society need to focus on both mitigation (reducing new loadings) and adaptation (dealing with already-initiated climate effects). The use of ICT can be a key tool in helping countries and communities prepare for and adapt to climate change. Intel, for example, makes a variety of silicon-based technologies to "harden" the electricity grid, making it more resilient to extreme climate events and enabling greater grid integration of renewable energy sources.
- Focus on emissions, not use, of essential gases: The semiconductor manufacturing process requires the use of fluorinated gases (F-gases) which have a high global warming potential. Despite years of research into alternatives, no viable substitutes exist or are on the R&D horizon. The semiconductor industry—led by Intel—has dramatically reduced our F-gas emissions over time even as the industry has grown. Governments should focus their restrictions and limits on emissions of GHGs, not the use thereof. This will allow governments to both meet their policy objectives and protect industries like semiconductors where the bulk of emissions come from the use of gases in their production processes.
- <u>Emphasis on market-based solutions</u>: Governments should employ market-based policy approaches wherever possible. Market-based approaches such as cap-and-trade systems and direct or indirect carbon taxes are all means of pricing carbon and providing emissions reducing incentives at lower cost than many traditional command-and-control approaches.
- Renewable energy and energy efficiency programs: 100% of Intel's US and EU electricity supply and more than 70% of our global electricity use is either directly purchased as renewable energy or through Renewable Energy Credits (RECs) or generated from on-site alternative energy installations. We support the expansion of renewable energy supplies through a variety of national (both US and in Europe and China) and state policies. We prefer market-driven approaches over mandates, but recognize that many states are pursuing renewable portfolio standards and energy efficiency mandates imposed upon electric utilities in their jurisdiction. Where mandates are considered, they should take into consideration electricity cost impacts, any potential risk to reliability or quality of service, and balance those with the goal of growing the market for renewables.
- energy efficiency requirements on products as a way of reducing GHG emissions from the power sector. ICT products are a frequent target of such policies due to their proliferation in the marketplace. Examples of such programs include Energy Star in the US and the Energy-Related Products (ErP) Directive in Europe. Government programs to require or encourage more energy-efficient ICT products should avoid measures that could stifle innovation and expanded product functionality. Efforts to reduce standby power should not discourage the development of so-called "smart grid-ready" or network-connected devices. In addition to setting reasonable efficiency limits, government product efficiency programs should harmonize their testing and compliance provisions with existing programs in other geographies, ideally with the testing procedures set by the US Energy Star program.

Geo-Specific Policy Principles

- <u>US federal-level action</u>: Solving the climate change challenge will require the US Federal government to assume stronger policy leadership. Intel supports increased Federal leadership and will continue to work with others in industry and civil society to develop and support innovative policy initiatives consistent with the above principles.
- <u>US state-level action</u>: While we strongly prefer Federal to state action, most recent climate policy activity has been at the state and local level. We engage at the state, city and utility supplier level in those states where we have significant operations or other interests. We prefer state actions that are coordinated on a regional or multi-state basis, increasing the size of policy markets, reducing the patchwork effect of localized actions and decreasing cost impacts.
- EMEA action: The EU Climate and Energy Framework incorporates Member-state national GHG targets and an ambitious emissions trading system (ETS) to meet its obligations under the Paris Agreement. In the ongoing development and reform of the EU's Policy Framework, Intel supports an emissions trading scheme that delivers the optimum reduction in carbon emissions at lowest cost. One means of reducing cost is linking the EU ETS with other compatible schemes, allowing trading across a larger market. Intel supports equitable burden sharing across all economic sectors as well as recognition of and credit for prior voluntary industry efforts to reduce climate-harming emissions. Finally, as the EU considers future climate policies, it should consider the impact of those policies on EU competitiveness by, for example, taking into account the risk of "carbon leakage". The EU's new "Green Deal for Europe" is expected to drive a more ambitious climate policy for the region. Two key actions identified are decarbonization of the economy and digitalization of resource-intensive sectors—areas where Intel views ICT playing a critical contributing role.
- China action: Prior to the Paris Accord, China and the US negotiated a bilateral agreement on climate, pledging to work together on progressive climate policies. That bilateral agreement made the Paris Accord possible. Unfortunately, this bilateral comity has broken down in the wake of the US withdrawal from Paris and broader geopolitical tensions. As China wants to grow its semiconductor sector, it should focus any greenhouse gas reduction requirements on the emissions of fluorinated gases, not the ability to use such gases. We support China's use of market-based GHG reduction approaches, including the developing national-scale emissions trading regime. We also support the expansion of renewable energy purchasing in China through market incentives. In addressing climate emissions associated with products, we encourage China to avoid product energy efficiency requirements that could stifle innovation. Finally, we urge China to embrace the role of "intelligent efficiency" as the quickest, cheapest way to reduce the carbon intensity of the Chinese economy.