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Intel Commits to Net-Zero Greenhouse Gas Emissions in its Global Operations by 2040

Intel's plan sets goals for reducing value chain footprint and catalyzing industrywide action to address climate change

SANTA CLARA, Calif.--(BUSINESS WIRE)-- **What's New:** Today, Intel Corporation announced plans to further reduce its direct and indirect greenhouse gas emissions and develop more sustainable technology solutions. The company pledged to achieve net-zero greenhouse gas emissions in its global operations by 2040, to increase the energy efficiency and lower the carbon footprint of Intel products and platforms with specific goals, and to work with customers and industry partners to create solutions that lower the greenhouse gas footprint of the entire technology ecosystem.

This press release features multimedia. View the full release here:

<https://www.businesswire.com/news/home/20220413005299/en/>

"The impact of climate change is an urgent global threat. Protecting our planet demands immediate action and fresh thinking about how the world operates. As one of the world's leading semiconductor design and manufacturing companies, Intel is in a unique position to make a difference not only in our own operations, but in a way that makes it easier for customers, partners and our whole value chain to take meaningful action too."

—Pat Gelsinger, Intel chief executive officer

What It Means for Intel's Global Operations: Intel is committing to reach net-zero greenhouse gas emissions across its operations, otherwise known as its Scope 1 and 2 emissions, by 2040. Intel's priority is to actively reduce its emissions, in line with international standards and climate science. It will use credible carbon offsets to achieve its goal only if other options are exhausted.

To realize this ambitious goal, Intel has set the following interim milestones for 2030:

- Achieve 100% renewable electricity use across its global operations.
- Invest approximately \$300 million in energy conservation at its facilities to achieve 4 billion cumulative kilowatt hours of energy savings.
- Build new factories and facilities to meet U.S. Green Building Council® LEED® program standards, including recently announced investments in the [U.S.](#), [Europe](#) and [Asia](#).
- Launch a cross-industry R&D initiative to identify greener chemicals with lower global warming potential and to develop new abatement equipment.

These targets strengthen Intel's commitment to sustainable business practices, like its [RISE](#) strategy. Intel's cumulative greenhouse gas emissions over the past decade are nearly 75%

lower than they would have been in the absence of investments and action.

“Intel has been a leader in sustainability results for decades. With leadership comes responsibility. We’re now raising the bar and entering an exciting era to achieve net-zero greenhouse gas emissions across our operations by 2040,” said Keyvan Esfarjani, executive vice president and chief global operations officer at Intel. “This will require significant innovation and investment, but we are committed to do what it takes and will work with the industry to achieve this critical mission.”

What It Means for Intel’s Scope 3 Emissions: Intel is also committed to addressing climate impacts throughout its upstream and downstream value chain, also known as Scope 3 emissions. Intel’s Scope 3 strategy focuses on partnering with suppliers and customers to take aggressive action to reduce overall emissions.

What This Means for Intel’s Supply Chain: Intel is actively engaged with its suppliers to identify areas of improvement, including increasing supplier focus on energy conservation and renewable energy sourcing, increasing chemical and resource efficiencies, and leading cross-industry consortia to support the transition to a net-zero greenhouse gas semiconductor manufacturing value chain. To accelerate progress, Intel is committed to partnering with suppliers to drive supply chain greenhouse gas emissions to at least 30% lower by 2030 than they would be in the absence of investment and action.

What It Means for Intel’s Products: To support customer sustainability goals and reduce Scope 3 product-use greenhouse gas emissions, Intel will increase the energy efficiency of its products and continue to drive performance improvements the market demands. Intel is setting a new goal to achieve a five times increase in performance per watt for its next generation CPU-GPU, code-named Falcon Shores. The company remains committed to its [2030 goal](#) to increase product energy efficiency by 10 times for client and server microprocessors.

To help customers achieve platform carbon reductions, Intel is extending innovation in:

- The layout, selection and modularity of all internal components to reduce the size of main boards.
- Continued increases in system energy efficiency and display efficiency to significantly reduce overall power consumption.
- The use of bio-based printed circuit boards to aid in the separation of materials and components when recycling, and to reduce overall electronic waste.

Intel has also set a new goal to lower emissions related to reference platform designs for client form factors by 30% or more by 2030. These efforts are taking shape with Dell’s [Concept Luna prototype device](#), developed in partnership with Intel to showcase future possibilities for sustainable PC design.

“Collaboration is key if we want to find solutions to the significant environmental issues the world is grappling with. Intel has been an important partner in this regard, helping us drive joint innovation supporting motherboard optimization, development of the bio-based printed circuit board and increasing system power efficiency in our Concept Luna device,” said Glen Robson, chief technology officer for the Client Solutions Group, Dell Technologies. “The ambition behind this ongoing work is to test, prove and evaluate opportunities to roll out

innovative, sustainable design ideas at scale across our portfolio — it's the only way we will sufficiently accelerate the circular economy and protect our planet for the generations to come."

About Creating More Sustainable Solutions: Intel is collaborating with hundreds of customers and industry partners to create solutions that meet the need for exponentially more computing processing power, while running more efficiently and using less energy. For instance, Intel is partnering to launch liquid immersion cooling pilot deployments for data centers across cloud and communications service providers, with [companies such as Submer](#). This includes embracing new principles, such as heat recapture and reuse via immersion cooling.

"99% of heat generated by IT equipment can be captured in the form of warm water, practically without losses and at much higher temperatures. Through partnership with Intel, Submer is able to scale a validated immersive cooling solution that saves energy while providing the ability to capture and reuse the subsequent thermal heat," said Daniel Pope, co-founder and CEO of Submer. "This will fundamentally change the way data centers are built and operated."

Increasing access to renewable energy is a critical step in reducing global greenhouse gas emissions. [Intel has developed a solution](#) that can be integrated into existing energy grid infrastructure to create a smarter grid that can adapt to changing energy consumption needs and sources. Intel and some of the world's largest utility operators formed the Edge for Smart Secondary Substations Alliance to modernize energy grid substations and better support renewable energy sources. France's largest grid operator, Enedis, recently joined to upgrade its more than 800,000 secondary substations with solutions that provide real-time control across the network.

Intel's programmable hardware and open software also deliver capabilities that enable greener solutions for customers. For example, within its data center that houses 5G communication facilities, Japan telecommunications operator KDDI reduced overall power consumption by 20% in a trial using Intel® Xeon® Scalable processors and Intel's comprehensive power management and AI capabilities, giving it the ability to scale power consumption according to demand.

More Context: Intel will continue to provide updates on its net-zero plans and greener computing strategies throughout the year.

Even More Context: [Intel Commits to Reduce Greenhouse Gas Emissions Across its Value Chain](#) (Press Kit) | [CEO Pat Gelsinger on Intel's Greenhouse Gas Reduction Strategy](#) (Video)

About Intel

Intel (Nasdaq: INTC) is an industry leader, creating world-changing technology that enables global progress and enriches lives. Inspired by Moore's Law, we continuously work to advance the design and manufacturing of semiconductors to help address our customers' greatest challenges. By embedding intelligence in the cloud, network, edge and every kind of computing device, we unleash the potential of data to transform business and society for the better. To learn more about Intel's innovations, go to newsroom.intel.com and intel.com.

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