What is Waste Heat

Anywhere there is an industrial process occurring – steel mills, paper plants, refineries, chemical plants, oil and gas pipelines--heat is generated as a byproduct and released into the atmosphere. This is waste heat.

Let's Capture It

Waste heat can be captured from an array of industrial processes through waste heat recovery technology. Several uses exist for this heat that can help reduce energy costs for industrial users, including Waste Heat to Power (WH2P) – the process of capturing industrial waste heat for power generation. Through the application of WH2P technology, waste heat is captured and converted into emission-free electricity. This energy can be put back into the process, into the facility for other electrical needs, or sold to the grid to support clean energy production, distribution and use.

Waste Heat to Power (WH2P) is the process of capturing heat that is the byproduct of an existing industrial process for emission-free power generation.

Today, new technology has revolutionized the potential of WH2P as a competitive generation opportunity. Once installed, since no incremental fuel is required, WH2P technology can deliver megawatts of electricity at between $50 - 100/MWhr, cheaper than most renewable generation (solar power, for example, costs more than $220/MWhr to produce). However, WH2P is not recognized with equal incentives for development. Ensuring proper recognition of waste heat as a renewable equivalent in federal and state legislation, providing an equal playing field, is essential for the development of the WH2P market, creating jobs and supporting American industry.

Redefine Renewable for America's Clean Energy Future

Today, renewable energy has been limited in its definition to naturally occurring resources. As the global leader in manufacturing, the U.S. produces 22 percent of the world's manufactured products, employing nearly 12 million workers. Making these goods requires constant industrial processes, continuously creating heat, a new and excess energy resource, 24 hours a day, seven days a week. Since this electricity is the same product as traditional renewables, we should consider defining "renewable energy" by the product, emission-free electricity, rather than the source.

While wind, solar, and geothermal resources are better known and formally recognized in U.S. energy policy, emission-free WH2P has been widely overlooked and excluded from tax incentives. Based on recent analysis of the viable heat opportunity, there is enough industrial heat being wasted annually to generate 10,000 MW of power, enough to power ten million American homes every year. We are literally letting the energy equivalent of nearly 60,000,000 barrels of oil vanish into thin air.

"When you're talking about waste heat every business, every industry, is generating some sort of energy byproduct, some sort of heat; it's going up in smoke stacks and nobody is using it. And the question is, can we capture that energy and use it in a smart way?"

--President Barack Obama

How to Act

The bipartisan Heat is Power Act has been introduced in the U.S House by Representatives Ron Paul (R-TX), Paul Tonko (D-NY), Jay Inslee (D-WA), and Shelly Berkley (D-NV) offering parity to waste heat with other forms of emission-free power. The bill offers waste heat a 30% investment tax credit, a credit which is already provided for traditional renewables that would enable manufacturers to capture the potential of WH2P today. Ask Congress to pass this important legislation. Eleven states have included waste heat in their renewable energy legislation – California, Colorado, Louisiana, Michigan, New Mexico, Nevada, North Dakota, Oklahoma, South Dakota, Utah and West Virginia. Ask your state legislature to include waste heat in its renewable energy portfolio today.

Visit www.heatispower.org to learn more about how you can help your state meet its Waste Heat to Power potential today.

The Heat is Power Association is the trade association of the Waste Heat to Power (WH2P) industry. Representing businesses everywhere, the not-for-profit organization is committed to educating decision makers and the public about the characteristics of waste heat as a resource for emission-free electricity generation and an economic driver for global competiveness. The Heat is Power Association promotes the efficient, industrial use of emission-free electricity generated through Waste Heat to Power processes. To learn more, visit www.heatispower.org.