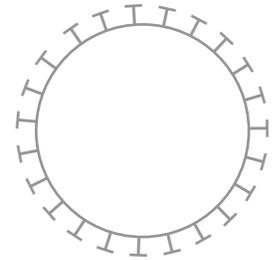
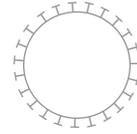


# Optimism for Solar Beyond the Great Lockdown

**Dr. Richard Hall, a Vice Chair of the Solar Heating and Cooling Programme, discusses ways in which the lessons from solar power could help bring the decarbonization of heating and cooling back on track.**



I write this opinion piece on Sunday the 26th of April 2020, a day when the death toll from the novel coronavirus has reached 200,000. Whilst the situation is starting to stabilize in many parts of the world, the severe impact of the COVID-19 pandemic on both public health and the economy is something that we will all be dealing with for many years to come.

2020 was meant to be a year of optimism; a seminal year when policy makers from across the world came together to present their ambitious new commitments to meeting the emissions targets agreed in Paris in 2015. But with the necessary reallocation of government resources to dealing with the immediate public health crisis, along with the need for social distancing, the 26th UN Conference of the Parties (COP26) has been postponed until 2021. In the face of postponement, however, the UN Climate Change Executive Secretary, Patricia Espinosa, has a clear message for policy makers: “we cannot forget that climate change is the biggest threat facing humanity over the long term”.

You may think that the postponement of the crucial COP26 meeting and the almost certain likelihood of severe, pandemic-induced, global recession would be a time for absolute despair for the solar heating and cooling sector; but I want to make the case for optimism. This is not blind optimism, but evidence-based optimism, built on an understanding of how solar power has developed over the last decade to become astonishingly inexpensive. I want to make the case that if policy makers are smart about the way they direct public finances in post-COVID economy stimulus packages, that the 2020s could be the decade when solar heating and cooling also became astonishingly competitive.

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## Solar Power and the Great Recession

The story of solar power over the past 10 years has been one of dramatic cost reduction and significant deployment growth, with solar power going from a relatively standing start, to overtaking solar heat in installed capacity. This was not an accident. Prior to 2010, solar power was dominated with what has been affectionally described as ‘scrappy start-ups’, many of them founded into the early 2000s and self-financed. At this time, solar power was relatively expensive, but there was a solid niche market for roof-top solar power in countries like Germany, which had introduced generous and robust demand incentives. Growth in deployment was rising steadily. And then, in 2009, the Great Recession hit the world economy, threatening the existence of the emerging solar power sector.

This could easily have been the end of solar power. But various states, identifying the importance of solar power in solving the climate crisis, declared it a ‘strategic emerging sector. They acted robustly, championing the sector and supplying it with multi, 100 million plus, stimulus packages, to ensure that it stayed on track. These stimulus packages included demonstration programs, strong support loans from banks and generous Feed-in-Tariffs (FITs) to stimulate demand. For example, the United Kingdom (UK) introduced a robust FIT that enabled solar power installations to go from virtually zero in 2010, to almost 1,000,000 by the end of the decade. Countries which

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identified solar as strategically important are now reaping the rewards, with the solar power sector employing over 3.4 million people worldwide, and supporting hi-tech innovation and manufacturing. As well as being a buoyant economic sector, the power sector is now almost on track to decarbonize in line with the Paris Agreement; although a lot of hard work is still needed to get there.

## The Case of Optimism

The progress made on solar power since the Great Recession gives us a model by which to decarbonize the heating and cooling sector following the Great Lockdown. As during the Great Recession, policy makers are now in the process of devising huge stimulus and recovery packages to restart their economies. There will be fierce debate over the coming months about the best ways to direct public finances to stimulate economies. But based on the World Bank sustainable recovery checklist and comments from the UN Climate Change Executive Secretary, sustainable stimulus packages are likely to:

1. Be labor-intensive and shovel-ready (begin quickly), to create decent jobs in the short term.
2. Stimulate inclusive employment across widespread geographies, to ensure the effects of the stimulus are felt across nations.
3. Lead to deep decarbonization of sectors of economies that are not already on-track to meet the Paris Agreement commitments.

There is a strong argument to be made that supporting the solar heating and cooling sector during this recession would meet the requirements of a clean and resilient recovery. In addition, the new International Renewable Energy Agency (IRENA) Global Renewables Outlook provides a persuasive argument that stimulating the renewables sector is both good for the environment and provides a substantial boost to the economy, with every £, €, \$ or ¥ spent bringing returns of between three and eight £, €, \$ or ¥.

## Lessons for the Decarbonisation of Heating and Cooling

Based on the impacts on the solar power sector of the various stimulus packages released following the Great Recession of 2009, we can suggest the following for post-COVID-19 solar heating and cooling stimulus packages:

1. States must identify the solar heating and cooling sector as one of strategic importance and act as a champion for the sector.
2. States must extend and introduce new policies that simultaneously stimulate demand for both centralized, low-carbon, large-scale generation (solar heat networks for deep decarbonization) and small-scale, energy efficiency (roof-top solar for mass-scale distributed employment).
3. States must support manufacturers with finance to set-up and expand highly automated turnkey manufacturing facilities.

The historic evidence from the solar power sector strongly suggests that the decisions made now by policy makers will determine whether the decarbonization of heating and cooling is on-track to meet the Paris Agreement commitments in 2030. As members of the IEA Solar Heating and Cooling Programme, we are uniquely positioned to support policy makers in developing high quality stimulus packages to support a clean and resilient recovery. With COP26 just around the corner and sustainable stimulus packages in the making, there has never been a better time to create an environment conducive to getting the solar heating and cooling sector back on-track.

