The Co2 Reduction Pennant Race



2021 MLB Playoff Standigs by Co2 Emissions Reduction Impact Potential

A Collaboration Between





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For teams looking to take a big swing at climate change, renewable energy is a high-impact opportunity to meaningfully reduce emissions for years to come. Major companies are committing to sourcing 100% of their energy needs from renewable sources, leveraging their standing as large organizations increase the development of new wind and solar plants. Who would come out on top of the impact standings if the teams in the playoffs did the same? Just like in baseball stats, there's more than one way to cut it.

Here's a look at the standings if all teams in the playoffs chose renewable energy:

LOCAL SOLAR IMPACT

By ranking the playoff teams by their impacts on emissions for offsetting 100% of annual energy use with local solar projects, we see that the teams in cities with dirtier sources of electricity, like Milwaukee and St. Louis, can have a big impact on emissions by building locally and cleaning up their grid. However, teams in San Francisco and Boston have a much smaller impact from local projects because the grid in those cities already have a high share of clean energy. By investing in local renewable energy, the teams at the top of the standings will have a huge impact on overall carbon emissions reduction.

EMISSIONALITY BOOST

Teams located in already cleaner grids could increase the impact of their energy purchases by as much as 235% by purchasing clean energy in a dirtier grid. Essentially, this gets them more bang for their buck, using a process known as "Emissionality".

This is the process of selecting renewable projects based on their avoided emissions, regardless of whether they are local to the purchaser. The difference in impact is comes from the study of which power plants will turn off when a new solar panel or wind turbine is installed - Clearly, a solar panel built in solar-heavy California will have a much different impact than a wind turbine in coal-heavy Wisconsin, even though they produce the same amount of energy.

LOCAL SOLAR IMPACT 11,000 11,000 9,300 8,300 8,100 7,400 6,600 6,500 5,000 3,600 GHG Impact of Offsetting 100% of Energy Use with Local Solar (tons CO /year)

EMISSIONALITY BOOST 235% 141% 85% 83% 53% 49% 45% 30% 10% 10% Increase in Impact from Offsetting with Renewable Energy in the Dirtiest Grid

^{*} Calculations performed using WattTime's marginal emissions signal with an assumed 15,000 MWh of energy use per year.