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Solar Parks Affect House Prices of Near Neighbors – The Actual Compensation in Denmark is too Low

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An onshore expansion of solar power is the fastest way to expand the power generating capacity. For instance, the establishment of offshore wind farm has historically taken nine years in Denmark, including different authority approvals, whereas solar parks can be established within only a few years. The expansion is, however, often slowed by the so-called NIMBY (not-in-my-backyard) syndrome. The phenomenon refers to neighbors that oppose nearby siting of anything undesirable in their neighborhood, even though they would support it at other sites. In this paper, we quantify the harm done to neighbors by solar parks, by looking at changes in house prices following the establishment of a nearby solar park. In a two-step hedonic house price model, we estimate that houses within 200 and between 200 and 400 meters of solar parks on average lose 10.5 and 3.2 percent of their values, respectively. We show that actual compensations granted by the Danish authorities are too low compared to these estimates in 75 percent of the cases where neighbors are granted compensation. Even with fair compensation as dictated by our estimates, the results suggest that, in the majority of Danish regions, profits in solar projects are sizable enough to both compensate neighbors properly and ensure investors a normal economic return to their capital investment.