Passage of IRA was clearly a big deal, with nearly $380 billion devoted to climate and other environmental issues. But IRA is only one of the three big climate bills passed in the ten months. The three represent a concerted effort to accelerate the energy transition.

The earliest was the Infrastructure Act last November. In early August, Congress followed up with the CHIPS law, and of course the grand finale was the IRA a few weeks later.

The Infrastructure Act was primarily about conventional infrastructure but also made a big investment in clean energy. It put $66 billion into passenger and freight rail; $39 billion to modernize public transit; $11 billion to improve safety for pedestrians and bikers; $7.5 billion to cut emissions from ferries and buses; $7.5 billion for charging stations for EVs; and $6 billion for energy storage. The law also addressed a big bottleneck in the energy system: lack of adequate long-distance transmission capacity. We will need much more robust transmission to achieve a carbon neutral grid.

CHIPS was designed to keep the U.S. from losing the technology race with China. As the name suggests, much of it was about chip making and AI. But researches at RMI point out that it also devotes billions of dollars to energy R&D, including clean energy technologies, hydrogen, nuclear, carbon removal, and building efficiency.

Finally, there's the IRA, which involves more money than the other two put together. As I noted in an earlier post, it is projected to cut carbon emissions by roughly a billion tons a year by 2030, while eliminating 4-6 billion tons while ramping up. There's some muttering among GOP politicians about repealing the law,. I'm very skeptical that doing so will be politically feasible after companies have made investment decisions. The Republicans lost their chance to demonize the law when it was passed, and it may be hard to build up a lot of outrage among the base after the fact.

To see the full context, you have to keep in mind the efforts that EPA and states are already making to cut carbon emissions through regulation. The Supreme Court deal EPA's efforts to regulate emissions a setback, but EPA will undoubtedly come back with some kind of substitute. In the meantime, its authority to regulate carbon emissions from new sources (including vehicles) is unquestioned, as is its ability to limit methane emissions from the oil and gas industry. States have their own regulatory effort. States representing half of the U.S. population have adopted 100% clean energy deadlines in some form.

It is hard to avoid a sense of developing momentum. To paraphrase Winston Churchill, we are not at the beginning of the end of this battle, but we are at least at the end of the beginning.