Power Market Edge

Power Market Insight

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Flood the system: The IRA is a regulatory nightmare that just might work

- In a strategic departure from the EU model for catalyzing the energy transition, the Inflation Reduction Act (IRA) opts to passively place immense pressure on regulatory bodies to overhaul tariffs and market structures rather than attempt to micromanage the markets themselves. The IRA aims to accomplish this feat by amplifying both operational and capital benefits to a host of key technologies. Under status quo market designs, it will be difficult for the full slate of benefits to be realized without undermining other channels of value (e.g. negative energy pricing, curtailments, collapsing ELCCs, REC price fluctuations, etc.) and exacerbating existing shortcomings (e.g. interconnection queue backlogs, transmission congestion, barriers to entry for battery and hydrogen technologies, etc.)
- In line with this apparent ethos of leaving structural questions to regulators, the IRA favors awards to isolated attributes over concerted synergies. For example, the law targets technologies that are largely characterized by one of three stand-alone attributes: cost effectiveness (expanding the PTC to solar as well as wind), reliability (removing the renewable co-siting requirement for energy storage ITC eligibility, and the addition of the clean hydrogen production credit), and carbon reduction (expansions and extensions for CCUS and direct-capture technologies under section 45Q).
- The expansion of the PTC to new solar resources may be one of the most consequential amendments to section 45. Prior to the IRA, solar resources were only able to earn the investment tax credit (ITC). The PTC is expected to be a far more valuable subsidy for solar projects moving forward and all but guarantees a reinvigorated project pipeline in the coming years. However, this expansion is also liable to exacerbate midday negative offer prices that ensure PTC capture.
- The extension of the PTC to existing nuclear facilities represents a bold line in the sand for the United States' position on nuclear's role in the energy transition. Electing to award existing nuclear facilities is an about-face on the trend of allowing numerous reactors to retire over the last decade in the face of safety concerns. The nuclear subsidy can amount to up to \$15/MWh if all labor requirements are met, but contains provisions that reduce the total award as captured energy revenue scales.
- Expanding the ITC to include stand-alone storage while creating a new production credit for clean hydrogen represents a clear push towards the commodification of clean backstop capacity. Given the ephemeral nature of energy arbitrage and ancillary service revenue for energy storage ventures, the ITC could give stand-alone storage projects a competitive edge in capacity auctions and other resource adequacy

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mechanisms. Meanwhile, the production credit for clean hydrogen will favor the firming value of electrolysis i.e. "green hydrogen" (in the form of converting unshaped renewable output into dispatchable hydrogen fuel) over steam-methane reformation ("blue hydrogen"), which provides little-to-no incremental reliability to the system on its own.

- The IRA will up the ante for the US-EU dialogue on energy transition—with positive prospects for EU concerns to be addressed amicably. The top-level reaction to the IRA in Europe is one of relief that the US has finally gotten on board the energy transition train in a serious way. However, the local-content rules seeded throughout the legislation provoked some pushback, with a Commission spokesperson saying these measures were "discriminatory" and represented a "trade barrier." Some press reports have suggested a WTO challenge could be in the cards, but this seems implausible, not least because the WTO's dispute-resolution body has zero judges (and seven vacancies) at present thanks to US obstruction. Meanwhile the United States has expressed its own grievances about the EU's Carbon Border Adjustment Mechanism, which is still working its way through the EU policy process but which is on track to be adopted in 2023. We expect that these two issues will be addressed collectively in the context of the pre-existing US-EU high-level dialogue on climate. Given the global energy situation, neither side will want to risk any significant blow-up, and some sort of constructive resolution to both issues is very likely.
- While the experiment of transferable tax credits could fall flat by only appealing to niche investors, its success could prove to be a policy masterstroke by greatly expanding the base of investors with a stake in the success of the energy transition. Rather than benefitting just a cohort of financial institutions that you could count on your hands (as has been the case since the inception of the PTC and ITC), lawmakers are looking to create a tax credit supernova by expanding access to anyone interested in the inherent tax shield provided by these projects from big tech to retail investors.
- By flooding the system with super-cheap, unshaped green electrons, subsidizing the foundations of a
 clean reservoir complex, and expanding the tax equity market from a limited clergy to a vast and varied
 investor community, the IRA has created a pressure cooker for state and federal regulators, ISOs, and
 RTOs. Despite the ostensibly chaotic prospects of the law, this rapid acceleration of economics and lack of
 regulatory prescriptions within the IRA could be the exact recipe needed to finally kick-off the reconstruction
 of US power markets in earnest.

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