Session 6: DOE i2x Initiative	
Question	**Answer**
What does “energy justice” mean?	Here are some resources that explain DOE's position on energy justice https://www.energy.gov/diversity/energy-justice-dashboard-beta and the ongoing Justice40 initiative https://www.energy.gov/diversity/justice40-initiative. Slide 29 has a reference on energy equity metrics.
how does DOE propose to handle the mutual exclusivity of the i2X program goals? ex: Faster/cheaper, yet reliable/reslient?	Tom answered this. Faster/cheaper is a goal, subject to constraint of not worsening reliability and resilience.
@Cynthia - Can you provide a link to the rap song you referenced? (edited)	Ha. This might take time. I'll talk to the artists and their agents. There may be royalties involved.
Inverters can't support frequency and voltage at the same time, there is P priority (frequency control first) or Q priority voltage control first). Problem!	Tom answered this. Inverters are able to control both frequency and voltage, as are synchronous machines. There can be tradeoffs and limits on capability, but these have mitigations available. The typical synchronous machine has a governer that controls P in response to frequency, and an excitation system that controls Q in response to voltage. P and Q are controled at the same time, but limited by a reactive power capability curve. The user can buy more capability if needed. Similar considerations apply to inverters.
Cynthia: Do you see the ITC for <5 MW facilities (including network upgrades) in the Inflation Reduction act to be enough to promote energy justice?	Promoting energy justice is complex. Speaking as me, not on behalf of DOE, I do not believe that an ITC alone is enough to promote energy justice.
In the 2023+ part of Cynthia's roadmap, it listed "funding opportunities" - what kinds of projects might be eligible for funding?	A final list has not been determined and will be dependent on the outcomes and priorities determined in the roadmap. Projects would meet the mission of i2x to provide innovative solutions to enable the simpler, faster, and fairer interconnection of solar and wind energy resources all while boosting reliability, resiliency, and security of our electric grid.
Are the sprint studies like MISO's tool: https://www.arcgis.com/home/webmap/viewer.html?webmap=8e32111ac8964e8a82f39bdc3fea347d	(Not answered in real time). MISO's tool identifies locations where RE might be accommodated. A sprint study is more like an abbreviated version of this: https://www.pnnl.gov/projects/transactive-systems-program/dsot-study
Missed the i2X meaning, can you clarify the acronym ?	(Tom's answer is on the recording.) Interconnection Innovation Exchange. https://www.energy.gov/eere/i2x/interconnection-innovation-e-xchange

Can someone help defining what UL1741SB/IEEE1547-2018 adoption date means? Date of IA/Inverter mfr date?/Sync date?	(Tom's answer is on the recording). Inverters compliant with 1547-2018 are just now coming on the market. The inverter nameplate information should state what standards and versions it complies with. The control and protection firmware version must also be accounted for.
Does software vendors or consulting companies required to share the white-box dynamic simulation model of IBRs with ISO/Utility? or they can encrypt them?	(Tom's answer is on the recording). This depends on the simulation tool. Encrypted models are less portable and may be difficult to debug when used in a specific network model. So, the ISO/utility may prefer a white-box model with appropriate confidentiality agreements.
We have an independent TO so all transmission interconnections are MISO/FERC. All distribution interconnection by state rule making which takes at least 2 years	(Not answered in real time). Agreed. Each such entity has different rules and processes, which tends to increase the cost and time to interconnect. i2X aims to improve the situation by identifying and promoting the adoption of best practices among different entitites.