ESIG Webinar: ERCOT Contingency Reserve Service (ECRS)	
Question	**Answer**
What is the purpose of using the language Load Resources that may or may not be controlled by high-set under-frequency relays;	ECRS only need to respond to the deployment within 10 minutes. Load resources can decide how to deploy, manually, through a relay or other auomations.
Does this mean the UFR status needs to be disabled or enabled when a NCLR is ONECRS?	UFR needs to be disabled when a NCLR is ONECRS.
When renewable wind power is used the inverter used act to destabilize the AC grid by not providing Active Phase Jump Power. What are you doing to combat this	This is another phenomenon, which is not suitable to be addressed by ECRS.
How to estimate the sustained net load ramps?	This is estimated by looking at the change in net load for the interested period, like 5-min, 10-min
Is the frequency being measured locally to determine the MWs required for frequency restoration for the entire power system?	yes.
Why are requirements for ECRS additive? That is frequency recovery and ramping needs? Is Reg requirement subtracted from that?	We need to cover two different reliability risks so that we add two together. Reg requirement is not substracted from it.
what's the difference between ECRS-Gen and ECRS-Load?	ECRS-GEN is SCED dispatachable and it can be automatically deployed based on the frequency deviation. ECRS-Load can only be manually deployed by operators.
As a follow-up: can a NCLR provide RRSUFR and ECRS simultaneously, if the MW do not overlap, for example a 10MW load has 5MW of ECRS and 5MW of RRSUFR.	NO
How is the traditional synchronous generation in ERCOT trending in the coming years?	The energy produced by SGs is trending down as more wind/solar generators are connected to ERCOT grid.
Can the ECRS be used to mitigate transmission line thermal overloading following a line, generation, or, load outage in real-time?	yes if this is ony the option to resolve the local reliability problem
Why is the total of the frequency recovery and load ramp capacities considered? Why is it not the larger of the two?	ERCOT like to cover two reliability risks, to be more conservative
How often do you update the ECRS requirement? Hourly in Real-Time or Daily?	This is calculated in Dec. for the incoming year

When participating as a load resource, does it matter how the load is reduced? If a site has generators or a battery, is that an acceptable means to respond?	The requirements for any source to provide ECRS are 1) to provide response for at least 2 hours and 2) to respond within 10 min
Can you provide any insight into how pricing for ECRS will be derived, will be it similar to RRS?	We have not studied this part
Why is ERCOT trying to prevent EEA1 ?	ERCOT like to operate the grid in a more conservative way
When will the protocols be updated to show ECRS testing procedures and necessary telemetered data points?	This Spring
You say ECRS used if RegUp is insufficient, but isn't RegUp for frequency control? Is ECRS used to restore available RegUp capacity?	If frequency is below 59.1 Hz, most likely, Reg-up is exhausted. ECRS can be deployed and as a result of ECRS deployment, hopely, Reg-up will be restored
After the 2 hour timeframe, I would assume the Service is designed to account for the responded capacity disappearing, is that accurate?	After 2 hours, the resources can stop responding to deployment instructions
Will the amount procured for Nonspin decrease after ECRS is added as a product? Or is this an additional product in addition to current Nonspin procurement?	Yes. Non-Spin requirement will decrease after ECRS goes alive.
When is ECRS expected to be available to the market?	This June
In one of youir slides you refered to the RFR and the FFR serices. re these services already implemented or under consideration at the present time?	FFR was implemented at ERCOT
PFR and FFR can provide some of the services of the ECRS. Comments?	No. PFR and FFR only provide a fast frequency response for a short period of time, and they are different from ECRS.