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Talina R. Mathews
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September 21, 2018

PARTIES OF RECORD

RE: Case No. 2018-00287
Kentucky Power Company

Attached is a copy of a memorandum which is being filed in the record of the above-referenced case. If you have any comments you would like to make regarding the contents of the memorandum, please do so within five days of receipt of this letter. If you have any questions, please contact Quang Nguyen, Assistant General Counsel, at (502) 782-2586.

Sincerely,

A handwritten signature in blue ink that reads "Gwen R. Pinson".

Gwen R. Pinson
Executive Director

QN/ch

Attachments

INTRA-AGENCY MEMORANDUM

KENTUCKY PUBLIC SERVICE COMMISSION

TO: Case File – Case No. 2018-00287

FROM: Quang D. Nguyen, Assistant General Counsel 

DATE: September 20, 2018

RE: Informal Conference of September 6, 2018

Pursuant to an Order issued on August 31, 2018, an informal conference (IC) was held at the Commission's offices in Frankfort, Kentucky, on September 6, 2018. The IC was held at the request of Kentucky Power Company (Kentucky Power) for the purpose of discussing Kentucky Power's proposed subscription to Grid Assurance LLC, and the applicability of KRS 278.2201 *et seq.* to Kentucky Power's purchase of goods and services under that subscription. The attendance sheet for IC is attached to this memo.

Kentucky Power representatives began the discussions by presenting a power point presentation. A copy of that presentation is attached to this memo. Kentucky Power indicated that an affiliate, AEP Transmission Holding Company, LLC, is an equity owner of Grid Assurance, owning a minority interest in the company. By way of background regarding Grid Assurance, Kentucky Power explained that the company was formed in 2016 to address emerging threats to the bulk power transmission system and enhance transmission grid resiliency. The primary aim of Grid Assurance is to provide its subscribers timely access to critical high-voltage transmission assets during a widespread outage caused by a catastrophic, high-impact-low-frequency event such as a cyber attack, severe weather event, or a physical terrorist attack. Grid Assurance will acquire the transmission assets (e.g., transformers and circuit breakers) required by subscribers and will store those assets in warehouse facilities located in the midwest and in the eastern part of the country. Kentucky Power notes that acquisition of a large transformer could take between 18-24 months. Grid Assurance would provide immediate access to critical high-voltage transmission assets to subscribers in the event of a widespread outage caused by a catastrophic event. The cost of the transmission asset to be acquired by a subscriber would be the original price paid by Grid Assurance at the time it purchased the asset. Kentucky Power informs that Grid Assurance is in the midst of a large requests for proposal process to acquire critical transmission assets. Subscribers would be placed in a certain tier dependent upon their transmission voltage needs. Kentucky Power notes that currently there are seven subscribers to Grid Assurance, all of whom are transmission owners located in 24 states in the northeast and Midwest. Because the transmission assets owned, or to be owned, by Grid Assurance are not energized, Grid Assurance does not fall under the jurisdiction of the Federal Energy Regulatory Commission.

A discussion was also had regarding the application of KRS 278.2201 *et seq.* and whether Kentucky Power's purchase of goods and services under the Grid Assurance subscription would be considered an affiliate transaction. Kentucky Power states that AEP Transmission Holding Company owns only a minority equity interest in Grid Assurance and exerts no control over Grid Assurance. Kentucky Power informs that the operations of Grid Assurance is governed by a seven person board of managers. Given that Kentucky Power is requesting expedited treatment of this matter, Commission Staff indicated that it would be more efficient for Kentucky Power to file an application rather than requesting an informal Staff opinion on this issue.

There being no further discussion, the IC was then adjourned.

Attachments

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY)
POWER COMPANY FOR 1) AUTHORITY UNDER) CASE NO.
KRS 278.2207(2) AND KRS 278.2219 TO THE) 2018-00287
EXTENT REQUIRED TO ENABLE THE)
COMPANY TO PAY FEES AND COSTS)
IMPOSED BY THE GRID ASSURANCE, LLC)
SUBSCRIPTION)

Informal Conference – September 6, 2018

Please sign in:

NAME	REPRESENTING
<u>Quang D Nguyen</u>	<u>PSC</u>
<u>Kyle Melloan</u>	<u>PSC</u>
<u>CHAD HERTMEYER</u>	<u>AEP</u>
<u>Ranie Wohnhas</u>	<u>KPCo.</u>
<u>Matthew Horsfield</u>	<u>KPCO</u>
<u>MARK R. C. JUSTICE</u>	<u>ST. LOUIS HARRISON Pa Ky Power</u>
<u>Eddie Beavers</u>	<u>PSC</u>
<u>Larry Cook</u>	<u>OAG</u>
_____	_____
_____	_____
_____	_____
_____	_____



GRID ASSURANCE® LLC

Meeting with Kentucky Public Service Commission Staff

September 6, 2018



An AEP Company

Proactive Industry Solution

There is a clear, reinforced need that requires timely action to implement an industry solution valuable to all stakeholders



- Need is driven by documented and emerging threats facing the industry
 - Physical threats - 2013 in California, the Metcalf substation was seriously damaged by a coordinated rifle attack damaging 17 large power transformers. In 2016, a substation in south-central Utah was attacked by a high powered rifle.
 - Cyber attacks - the simultaneous 2015 cyber attacks in Ukraine
 - Extreme weather events - represent a growing threat to the resiliency of the grid.

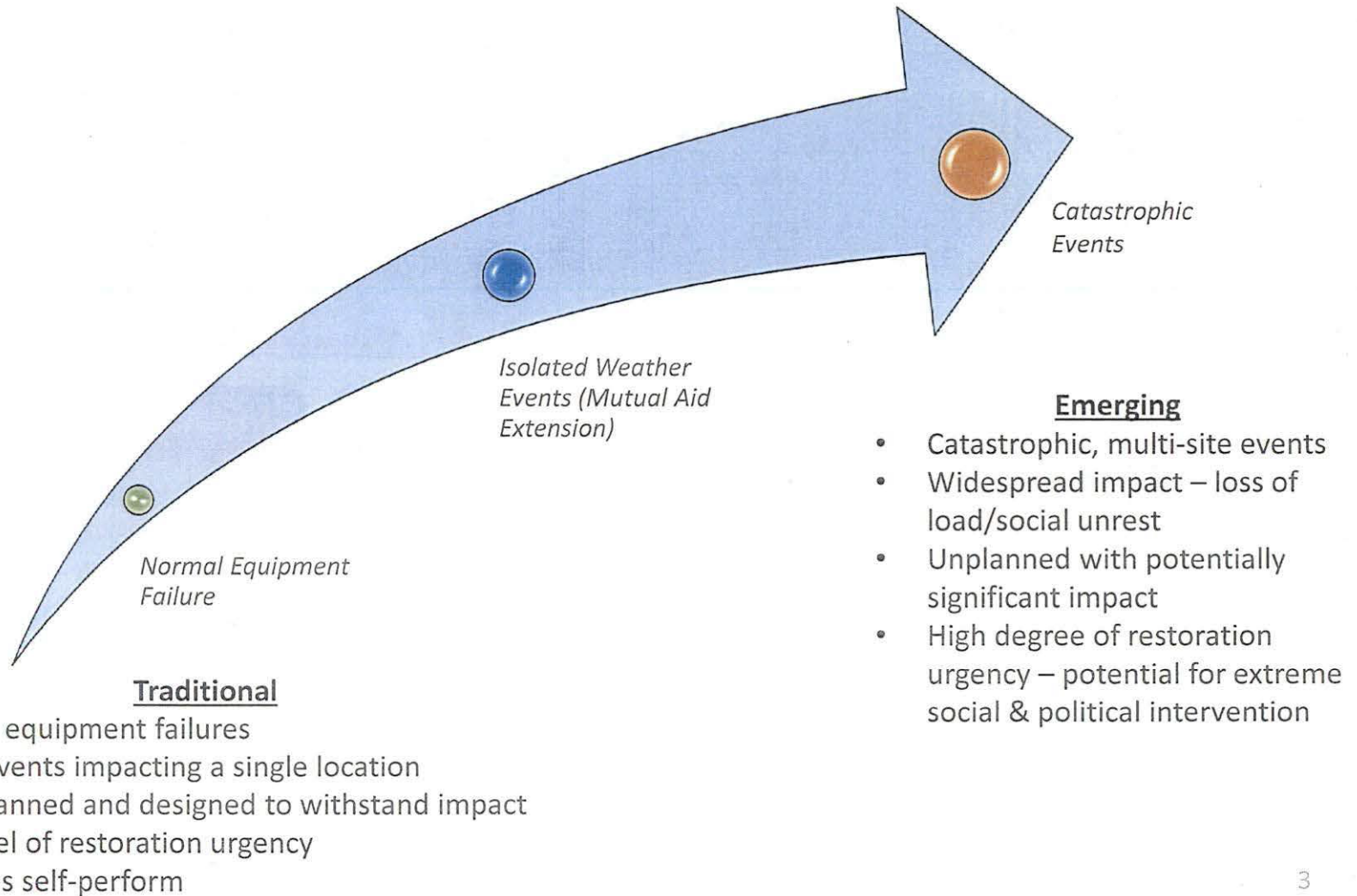
- Legislators and regulators are pursuing solutions and looking for action
 - NARUC Resolution – Resilience in Regulated Utilities
 - FAST Act directs DOE to submit a plan to Congress evaluating the feasibility of strategic transformer reserve to protect from extreme events which threaten the reliability of the transmission grid – report due to Congress December 2016
 - On February 17th DOE formally asked Grid Assurance for information that would assist their analysis and recommendations – response provided on March 4th as to Grid Assurance progress.
 - Positive declaratory rulings from FERC.



- This initiative has a wide range of support for action including FERC, EEL, state regulators and many utilities

New Emerging Threats Call for a New Resilience Level

New high impact, low frequency threats to the U.S. electric transmission grid have different characteristics than traditional utility risk planning scenarios





Collaborative Industry Solution

Grid Assurance was created to provide a cost-effective industry solution via pooling critical long lead time assets to expedite restoration following high-impact low-frequency events.



An Industry Driven Solution

Combining experience and innovation for a more resilient grid



Optimized Inventory of Critical Equipment

- Provide subscribers access to pooled inventory matching their system needs
- Optimize inventory volume to meet requirements at lower cost
- Actively manage inventory to mitigate risk of obsolescence
- Establish transferable asset warranties for Subscribers with appropriate length and terms

Secure Storage

- Secure, cost-effective storage
- Located apart from Protected Equipment
- Strategic, geographically diverse storage locations
- Sites not prone to natural disaster
- Indoor facilities add to security and ease of maintenance

Transportation & Logistics Support

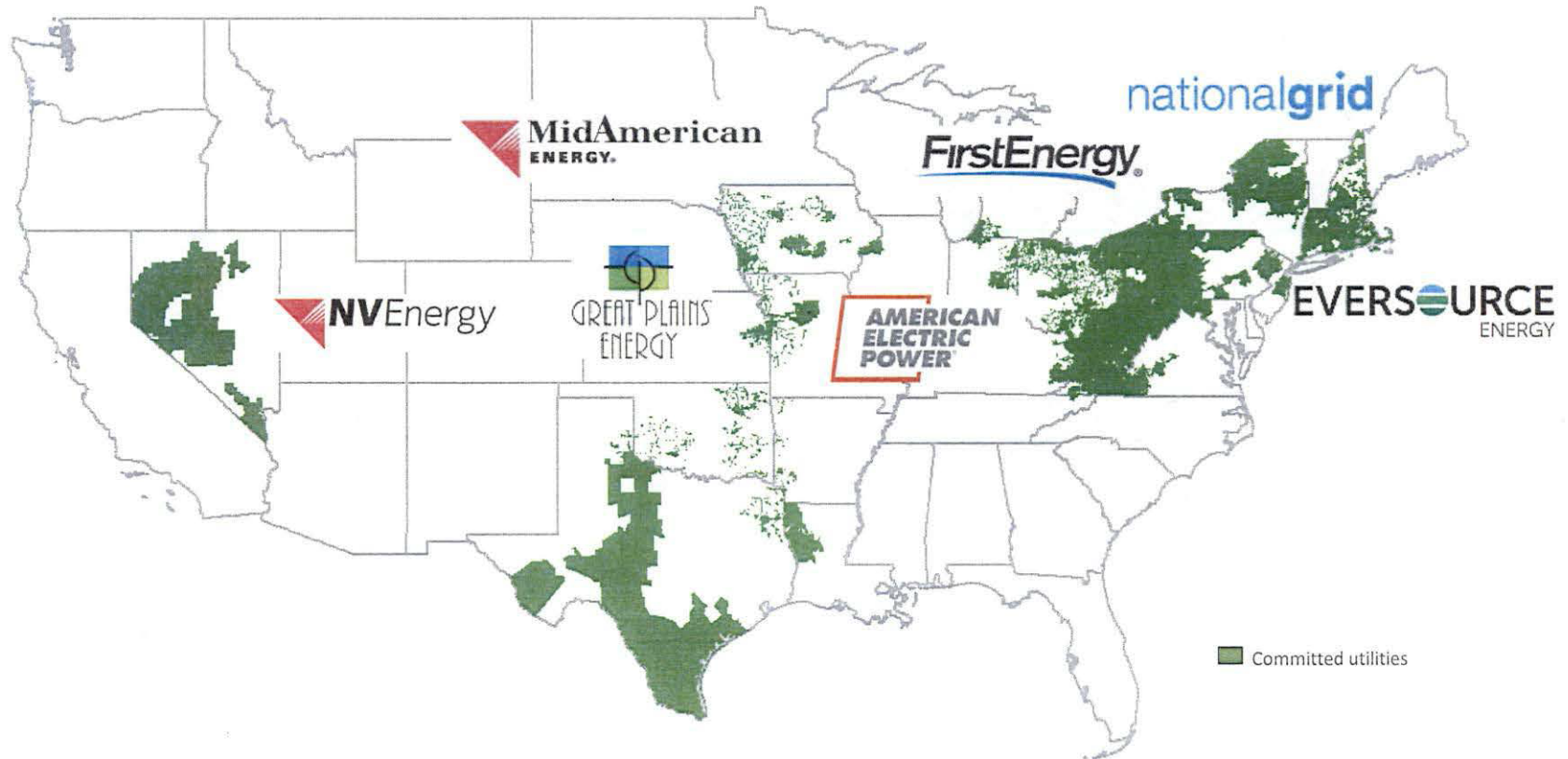
- Create and maintain advance logistics plans to reduce deployment time
- Coordinate/facilitate transportation capabilities
- Access to equipment and vehicles that could transport inventory
- Engage state/federal authorities regarding permitting and priority



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Current Subscriber Status

Current Grid Assurance Subscriptions represent a strong presence in the Northeast and Midwest. The resulting profile spans a total of 32 transmission owners that cover 24 of the lower 48 mainland states





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Commercial Overview

Grid Assurance is an independent unregulated company that has been formulated to look and act like a regulated transmission company with a tariff-based offering. The Cost of Service (COS) structure and commercial safeguards reduces business risk.

Key Commercial Aspect

Unregulated Company

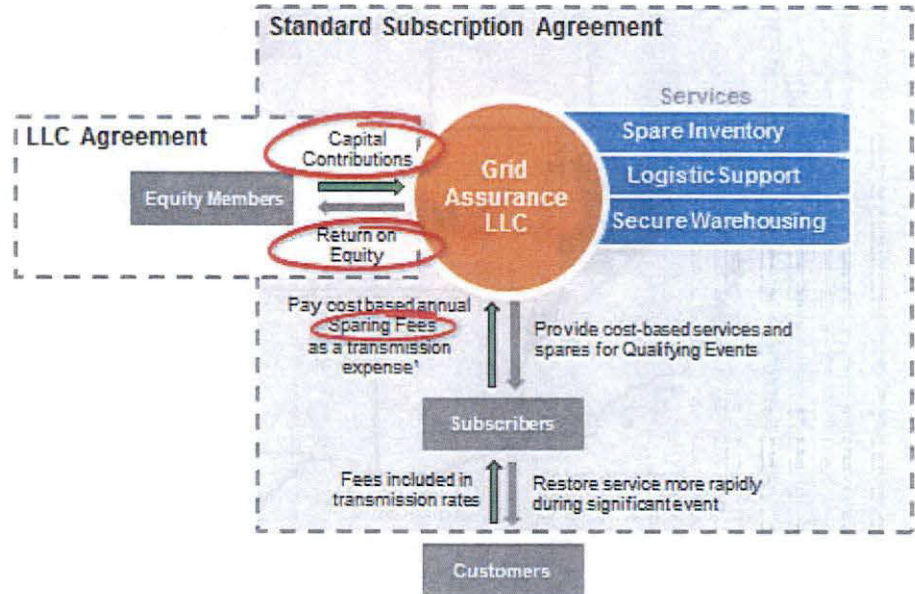
Standalone Company

Cost of Service Model

ROE similar to FERC Transmission Owner

Standard Form Subscription Agreement

Specific Safeguards In Place



Upon a Qualifying Event equipment is provided at original cost and included in transmission rate base of Subscriber



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Sparing Service Fee

The Sparing Service fee is the fee payable by the subscriber for Grid Assurance Sparing Service. The Sparing Service fee is a monthly, cost-based fee that is determined based on a formula set forth in Schedule 5.1 of the Subscription Agreement.

- ❑ **Subscribers pay a Sparing Service Fee in order to access inventory following a Qualifying Event.**
 - This fee covers costs such as warehousing and maintaining the inventory
 - Grid Assurance provides services at cost with ROE similar to other transmission investments.

- ❑ **Sparing Service Fee consist of the cost to operate Grid Assurance including:**
 - Cost to purchase, store and maintain the equipment
 - General and Administrative costs
 - Financing Costs
 - A return on investment equity similar to regulated transmission returns – average of subscribing utilities

- ❑ **Sparing Service Fees calculated for each equipment class**
 - Subscribers will pay cost that is specific to their sparing needs
 - Common costs allocated to each equipment class on a prorated basis
 - Subscriber's individual Sparing Service Fee based on their Nominated Quantities in each class – the number of units the Subscriber has the right to access in each of the classes to which they subscribe



Qualifying Events

The Subscription Agreement defines “Qualifying Event” to cover a broad range of events that are the most probable to cause catastrophic damage to the grid.

- **Subscriber’s can purchase assets up to the Nominated Quantities at Original Cost following a Qualifying Event**

Qualifying Event

A “Qualifying Event” is any damage, destruction or material impairment of the safe operation of a Subscriber’s protected equipment, which is caused by, or the result of, any of the following events or circumstances:

- An act of war, terrorism, rebellion, sabotage or a public enemy, or any other physical attack, whether or not in connection with an act of war, terrorism or a public enemy
- A cyber-attack, whether or not in connection with an act of war, terrorism or a public enemy
- An electromagnetic pulse or intentional electromagnetic interference
- An act of God, a natural catastrophe or a severe weather condition, including a solar storm, earthquake, flood, fire, hurricane, tornado, volcanic eruption, derecho, wind storm or ice storm

- **Grid Assurance has the right to sell assets for events other than Qualifying Events – Discretionary Sales**
 - the purchase price for Discretionary Sales is anticipated to be the greater of the Original Cost or the Replacement Cost
 - mitigate the risk that Inventoried Spares could become technologically or physically obsolete



Federal Regulatory Approvals

Federal Energy Regulatory Commission granted 5 regulatory declarations for the benefit of prospective customers.

FERC Orders

- Initial Declaratory Order issued by FERC on August 7th, 2015 [Docket No. EL15-76]**
 - Contracting with Grid Assurance for access to spare equipment is a permissible element of a physical security plan to satisfy Requirement R5 of mandatory reliability standard CIP-014-1; and
 - No prior authorization under FPA Section 203 is required for sales of spare equipment by, or purchases of spare equipment from, Grid Assurance.

- Second Declaratory Order issued by FERC on March 25th, 2016 [Docket No. EL16-20]**
 - Prudency of joining Grid Assurance and purchase of spare equipment in case of a qualifying event
 - Single-issue ratemaking
 - Waiver for affiliate pricing rules subject to certain conditions

- FERC issued order on July 8th, 2016 ruling that a transmission owner with a formula rate will not be required to make a separate 205 filing for Grid Assurance Costs, provided such formula rates already incorporate the accounts to which Grid Assurance-related charges will be booked.**



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State Regulatory Approvals

State approvals are underway. MidAmerican Energy received an order granting participation in Grid Assurance, LLC from Illinois Commerce Commission in Docket No. 18-0536.

No.	Subscriber	State	Filing Status
	National Grid	MA, NH, NY, RI, VT	No regulatory approvals needed.
	Eversource	NH, MA, CT	No regulatory approvals needed.
	NVE	NV	No regulatory approvals needed.
	AEP-I&M, SWEPco, PSO, OK TransCo, OPCo, Ohio TransCo, AEP Texas, ETT, KgPCo	MI, AR, LA, OK, OH, TX, TN	No regulatory approvals needed.
	MEC	IL	Filed 3/8/18. 8/28/18, ICC unanimously approved MidAmerican Energy's (MEC) participation in Grid Assurance.
1	AEP-APCo, WV TransCo, WPCo, FE-TrAILCo, MonPower, Potomac Edison	WV	Filed on 7/11/18. The WV Commission Staff issued a Joint Staff Memorandum on 8/28/18. Staff recommends granting the requested waiver and did not flag any immediate issues. Staff committed to continuing the investigation and plan to file a timely recommendation by 9/30/18.
2	AEP-KPCo	KY	9/6/18, KPCo meeting with the Kentucky Commission.
3	AEP-I&M and I&M TransCo (IN)	IN	Prior to Transition, I&M will provide the Subscription Agreement to the IURC through a notice filing.
4	AEP-APCo, Appalachian TransCo,	VA	Filed 7/11/18. Currently, responding to data requests. APCo requested Commission action by 9/30/18.
5	KCP&L	MO	Filed 5/18/2018. No statutory time limit but KCP&L requested Commission action by 9/30/18. KCP&L is currently pursuing a settlement with Staff with expected action by end of September.
6	FE-Jersey Central Power & Light	NJ	9/6/18, FE met with New Jersey Commission.
7	FE-MAIT, TrAILCo	PA	Filing is scheduled for second week of September.



Applicability of Kentucky Affiliate Transaction Statutes

- ❑ **Application of KRS 278.010(18) to Grid Assurance – Kentucky Power, AEP Transmission Holding, and Grid Assurance will not be under common control:**
 - AEP Transmission Holding will own a non-controlling, less than majority, equity interest in Grid Assurance.
 - Other Grid Assurance equity holders include large and sophisticated transmission owners such as National Grid plc, FirstEnergy Corp., and MidAmerican Energy Company.
 - Grid Assurance to be managed by a seven-member board of managers.

- ❑ **Asymmetrical Pricing Requirement Of KRS 278.2207:**
 - Given the nature of Qualifying Events the Original Cost of an asset is likely to be less than market price in many events.
 - Ability to promptly receive asset is an important part of an asset's value that would not be reflected in market price associated with delayed delivery.



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Applicability of Kentucky Affiliate Transaction Statutes

- Request for a Waiver or Deviation to the Extent the Commission Determines the Need For a Waiver or Deviation:**
 - The cost-based expenses associated with Kentucky Power's contract allocated share of the Sparing Service Fee is reasonable and in the public interest.
 - Purchasing equipment at Original Cost is reasonable and in the public interest.
 - Absence of similar services makes determination of a market price for the contract allocated share of the Sparing Service Fee impracticable.
 - Sparing Service helps minimize cost by optimizing purchases and providing opportunities for high-volume purchases thereby making purchase price reasonable and in public interest.
 - Increased certainty of availability, off-site secured storage, expedited delivery, and ability to subscribe to equipment with required specifications makes service both reasonable and in the public interest.

- Request for Expedited Treatment**



Comparison of Spare Equipment Efforts

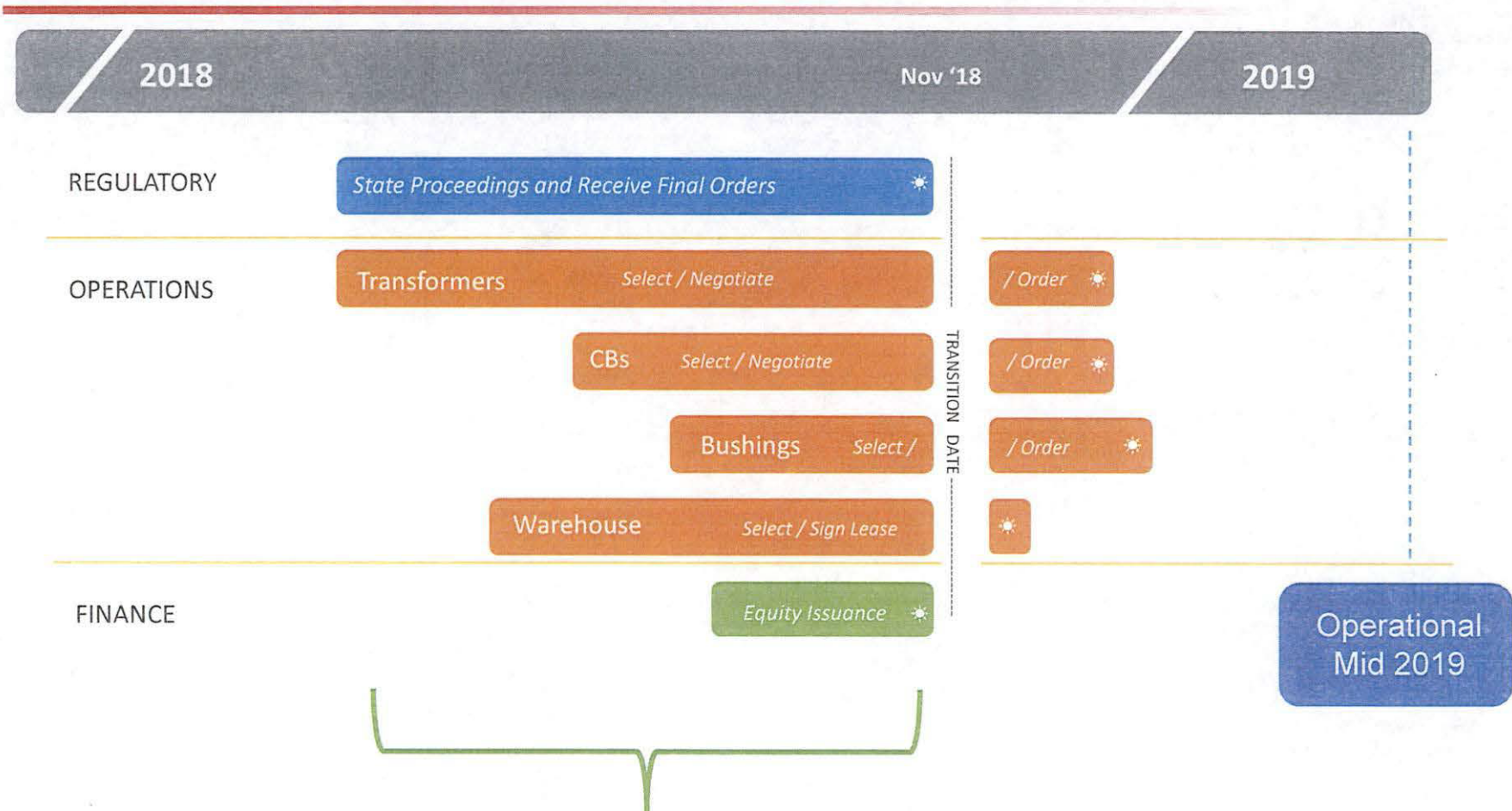
Only one option exists that provides utilities with a high confidence restoration plan that can be relied upon and executed

	Increased Deployment Ready Capacity	Preplanned Transportation & Logistic Plans	Secure Domestic Warehouse Storage	Dedicated Professional Team	Cost Transparency & Regulatory Clarity
 <p>Industry-based initiative to establish a pool of dedicated critical long lead-time equipment</p>					
 <p>Industry-based regional initiative for enhanced <u>mutual assistance</u> for critical spare equipment</p>					
 <p><u>On-line tool</u> for utilities to network to facilitate equipment sharing</p>					
 <p>Mechanism for utilities to share assets in the event of deliberate destruction (Requires Declaration from POTUS)</p>					



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Steps Toward Transition



*Focused Team Effort to November Transition Date;
Positions Grid Assurance to be Operational by Mid-2019*



Contact Information



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