



Community Advisory Panel Meeting Minutes for April 3, 2025

Members attending the meeting:

Brian Strutz
Laura Johns
Tiki Dixon
Keira Wyatt
Janet Testerman
Dr. Stephen Smith
Dr. John Nolt
Cheryl Ball
Misty Goodwin

Others in attendance:

Dawn Ford, Facilitator

KUB Staff:

Susan Edwards
Mark Walker
John Gresham
Erin Gill
Ardo Ba
Kepler Barnhart

KUB Commissioners:

Kathy Hamilton

New Business

The Community Advisory Panel met at 3:00 p.m. on Thursday, April 3, 2025 at KUB's Hoskins Operations Center (4505 Middlebrook Pike).

Dawn Ford welcomed everyone and asked for the panel members in attendance to introduce themselves.

Ms. Ford asked if there were any changes to the February meeting minutes. There were no changes, and the panel approved the minutes.

Ms. Ford shared the meeting's topic as KUB's electric system modernization strategy. She introduced Erin Gill, KUB Vice President of Sustainability & Government Relations, and John Gresham, KUB Senior Vice President and Chief Engineering & Operations Officer, to give the presentation and lead the discussion.

Ms. Gill started the presentation by sharing that today's discussion will give a preview of potential grid modernization initiatives KUB will be working on in the upcoming fiscal year. She then showed examples of how the electric industry is evolving and how these changes require agility to meet customers' energy needs. She continued that KUB's decisions are focused on balancing the needs and priorities of the system and customers. Mr. Gresham then shared examples of what drives system peaks and pressure on the grid. Laura Johns said the balance of needs and priorities shared are very similar to what she sees with businesses.

Dr. Stephen Smith asked about a decision by Hamilton County Schools in Chattanooga to close during a period of cold weather and if this was directed by EPB due to TVA curtailment. Mr. Gresham shared information on TVA's Emergency Load Curtailment Program and the steps involved in the process. He said he had heard that the school system voluntarily made the decision to close and not at the request of TVA's curtailment. Mark Walker said representatives from EPB shared with him that the closure was a decision from the school system and not requested by EPB. Dr. Smith said he has heard discussion on curtailments being more common due to changes at TVA and asked if KUB was preparing for that. Ms. Gill said that today's discussion highlights some of the potential tools KUB could use in a curtailment situation. Mr. Gresham said TVA has made changes after Winter Storm Elliott that includes winterizing their plants and addressing future power generation. He said KUB is preparing for situations where curtailment may be needed in the future.

Mr. Gresham continued the presentation by sharing technological advancements that are allowing for greater agility. He then discussed the self-healing grid program which reduces the impact of outages for customers. The program uses smart switches and fiber to automatically restore power interruptions for as many customers as possible while repairs are made for the damage affecting other customers.

Dr. Smith asked if a neighborhood with fiber service would automatically be covered by this. Mr. Gresham shared that the smart switches are installed three to six months behind the fiber deployment, but all electric customers will be covered by these switches when the fiber system buildout is complete. Dr. Smith said he sees other benefits from the self-healing grid. One includes less use of dispatching trucks for outages. Mr. Gresham said while trucks would still be dispatched to solve the physical problem, they would no longer need to spend as much time driving to search for the issue.

Ms. Gill continued the presentation by sharing projects that can advance KUB's goals of system resilience, wholesale bill savings, and customer convenience and preference. She showed a video that explained energy demand and peak loads.

Dr. Smith asked about KUB's peak demand trend and if they were seeing an increase. Ms. Gill said that KUB has not seen a significant increase in overall load but has seen an increase in the number of peak demand spikes. Kepler Barnhart said that the demand spikes were seen more during winter storms. Dr. Smith asked if TVA bills KUB based on the max peak demand. Ms. Gill confirmed that KUB is billed based on the peak demand each month.

Janet Testerman asked if there is a threshold where KUB pays a premium to TVA on power use. Ms. Gill said TVA is purchasing the power at a premium, which is passed along to KUB, and then passed along to customers. Mr. Gresham added that day-to-day peaks within the area have not been a concern, but weather events, which are becoming more significant and severe, have been the issue for peak demand. Dr. Smith asked if the spikes could be contributed to older heating systems. Mr. Gresham said these could potentially contribute to the demand. Dr. Smith asked if KUB can identify specific areas on the grid with higher peaks. Mr. Gresham said this isn't something KUB is able to do yet. He shared that KUB's grid is designed to have large capacity. He used an example of the substations carrying 50% of the load any day with the remaining capacity in reserve for maintenance and upgrades. This design provides a secondary benefit of allowing more flexibility and capability.

Ms. Gill and Mr. Gresham continued by sharing two utility projects on the horizon for KUB: voltage optimization and grid scale battery storage.

Dr. Smith asked if there was an expense related to not running voltage optimization 24/7. Mr. Gresham said it was a threshold issue that would stress the system.

Ms. Wyatt asked the anticipated time for rolling out battery storage. Mr. Gresham shared the goal is in the next fiscal year. Ms. Wyatt asked what types of jobs would be added with the rollout of these programs. Mr. Gresham said the self-healing grid will change some behaviors for system operators but not create new positions. Voltage optimization would be similar, but an engineer may be added to forecast when optimization is used. The battery storage would likely be initially installed by contractors and facilities maintained by KUB employees. Ms. Wyatt asked if it would be safe to assume some jobs would be eliminated due to automation. Ms. Gill and Mr. Gresham said they do not anticipate these programs would have an impact on the workforce since these are additions to the current system. Ms. Wyatt said she is concerned with impacts on the community with the continuing advancements in technology. She is concerned the community would experience a reduction in workforce or a lack of technical skills. Mr. Gresham said that KUB hired a consultant to discuss grid modernization planning, and the workforce and community impacts are part of the domains that they are focusing on when it comes to the grid projects.

Dr. Smith said that he believes KUB should share the information on these utility programs. He believes this would motivate customers and cause a sense of common purpose if the utility is leading in these technologies. He said it is great to hear that KUB is getting into that space. He feels customers would be interested in this information as it demonstrates KUB would be leading by example for the community.

Ms. Testerman asked how many substations would utilize the battery packs. Mr. Gresham said four are currently planned. Ms. Testerman said while she agrees with savings, she felt the \$3.8 million/year in savings for these projects are small compared to the overall budget. She said she is thinking of different scenarios, such as if the battery packs would be obsolete by the time they reach their return on investment. Mr. Gresham said that this industry is accustomed to infrastructure lasting for many years, but this is changing with technology advancements. He said that storage on the system is something they haven't had before and it's hard to say what it looks like 10 years from now. Cheryl Ball said the savings would be greater if spread across all substations. Ms. Gill said that long-range planning has expansion of battery storage, but they are balancing other capital demands, and KUB has 63 substations overall.

Ms. Ball said to not undervalue the ability of customers to comprehend. She said the video made it simple to follow peak demands and allows customers to understand cost savings. She thinks there is value in customer education and participation.

Tiki Dixon said he was concerned with the costs passed down to the customers. He added that marketing and public relations efforts are important to explain to customers how they can help and what the savings look like.

Ms. Gill transitioned back to the presentation by discussing three customer-facing programs: microgrid partnerships, residential energy resources, and smart thermostats.

Ms. Wyatt asked if financing would be offered for the residential energy resources. Ms. Gill said this hasn't been considered yet as these are more high-level discussions. Ms. Wyatt said she is opposed to any type of financing that would be tied to a customer's mortgage or home.

Dr. John Nolt shared that he usually keeps his windows open to cool his home but mistakenly left one open at night which caused his heat to constantly run. He asked if there was something in these programs that would register the increase in energy use. Ms. Gill said she isn't familiar with a program that offers this functionality. The programs KUB has been researching are very intentional with what they monitor and tailored more towards needs of the grid.

Brian Strutz said that education on smart thermostats would need to be included so that they can be used properly and provide the intended benefits. He added that there also needs to be education for younger generations who may not be aware of power hardships and conservation. He said information of these programs and who qualifies should be like the KUB Fiber availability page to provide ease of use.

Mr. Dixon asked about the land and infrastructure required for these projects. Ms. Gill said it would depend on the property and who participates. Mr. Dixon said it's important to think of the impact and how the community can support these goals.

Ms. Johns asked if the residential energy resources would have ongoing rebates and incentives or would it be a one-time incentive. She said she doesn't experience enough power outages that

would justify the expense of a system like this at her address. Mr. Gresham said he can see it being a fit for a customer experiencing reliability issues, but KUB could subsidize this energy during peak times for other customers. He agreed there are some customers where this program wouldn't fit their needs.

Dr. Smith said he participates in KUB's time of use program and would like to hear about the program's performance, how it's communicated through the community, and the benefits that have been seen from it. He said the residential energy resources program really works when it is incentivized. He said his home has solar and battery storage that can be used during peak times, and he receives a credit from KUB/TVA for the solar generation. He stated he does not recommend incentivizing generators and feels this works against sustainability. He said a time of use rate should be paired with solar generation and batteries. He also suggested incentivizing more off-peak charging for electric vehicles and educating customers as the use of EVs continues to grow. He asked if KUB has done the math on smart thermostats and if a stronger program on a smaller set of customers would be more beneficial during peak times. Mr. Gresham said that KUB is doing things that he mentioned and other programs that were not mentioned in today's presentation. Dr. Smith said microgrids only impact a small group of customers. Ms. Ball said the City of Knoxville has interest in microgrids in marginalized communities with existing infrastructure.

Mr. Dixon said it is important to have a relationship with the community to rollout programs and incentives like this.

Ms. Ford announced that the next meeting would be June 5 at 3:00 p.m.

No members of the public addressed the panel during the public forum.

The meeting was adjourned at 4:30 p.m.