

**Dunston, Shonta**

E-100 Sub 190 CS

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JUN 25 2024

**Subject:** FW: In Rust We Trust

**From:** Carolyn Moore <[20daisy09@gmail.com](mailto:20daisy09@gmail.com)>

**Sent:** Monday, June 24, 2024 7:46 AM

**To:** Mitchell, Charlotte <[cmitchell@ncuc.gov](mailto:cmitchell@ncuc.gov)>

**Subject:** In Rust We Trust

Dear Commissioner Mitchell,

I'm a grandfather who just wants a livable future for me and my generation.

Economists say that if the price of grid storage drops to \$20/kWh, fossil fuels will not be competitive with renewables. That is now on the verge of happening with a battery based on rust!

<https://singularityhub.com/2023/01/11/form-energys-new-factory-will-churn-out-iron-air-batteries-for-grid-scale-storage/>

Form Energy's iron-air battery offers low cost (\$20/kWh), long duration (100-150 hours), safety (non-flammable), and recyclability. All of these are key advantages over lithium-ion batteries for grid-scale energy storage. It can store energy for 100 hrs. However, it has lower efficiency (50% vs. 95%), slower charging, and larger size/weight than lithium batteries.

Although rust batteries are less efficient (50% vs. 95%), that doesn't matter in places like California and Texas, where there is a surplus of renewable energy. And as solar and wind get cheaper, there will be more and more states in this situation.

The upshot? New fossil fuel infrastructure is a bad investment - not just for ecologically, but financially. No new fossil fuel infrastructure, period!

Sincerely,

Robert Moore

Wake Forest, North Carolina

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**Subject:** FW: Require utilities to consider grid-enhancing technologies

**From:** Carolyn Moore <[20daisy09@gmail.com](mailto:20daisy09@gmail.com)>

**Sent:** Sunday, June 23, 2024 2:01 PM

**To:** Mitchell, Charlotte <[cmitchell@ncuc.gov](mailto:cmitchell@ncuc.gov)>

**Subject:** Require utilities to consider grid-enhancing technologies

Dear Commissioner Mitchell,

I'm a grandfather who just wants a livable future for me and my generation.

I am writing to urge you to take proactive steps in requiring utilities to consider Grid-Enhancing Technologies (GETs) like reconductoring in their operations.

GETs offer a cost-effective and efficient solution to enhance our current grid infrastructure, ensuring grid reliability without the need for extensive new infrastructure development. As recent studies and industry experts have highlighted, reconductoring existing power lines with advanced materials such as composite carbon fiber wires could potentially resolve up to 80% of our current transmission backlog at a fraction of the cost of building new lines. This approach not only saves on construction expenses but also eliminates the need for acquiring new right-of-way, which can be a lengthy and expensive process.

By mandating utilities to integrate GETs into their transmission planning and infrastructure upgrades, North Carolina can significantly improve grid efficiency and reliability. These technologies optimize power flow, reduce congestion, and enhance the overall resilience of our electricity network. They are crucial in ensuring that our grid can effectively handle growing electricity demands and support the integration of new energy sources.

As our state faces increasing pressure to modernize its energy infrastructure while managing costs, the adoption of GETs presents a viable path forward. It aligns with the goals of promoting economic efficiency, meeting environmental objectives, and preparing for future energy challenges.

I strongly encourage North Carolina to lead the way in promoting these advanced technologies. By requiring utilities to consider and deploy GETs, we can pave the way for a more reliable, efficient, and sustainable energy future for all residents of North Carolina.

Thank you for your attention to this important matter.

Robert Moore

Wake Forest, North Carolina

Chair | North Carolina Utilities Commission

JUN 25 2024

**Dunston, Shonta**

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**Subject:** FW: Require utilities to consider grid-enhancing technologies

**From:** Maura Dillon <[maura.dillon@gmail.com](mailto:maura.dillon@gmail.com)>

**Sent:** Sunday, June 23, 2024 8:31 PM

**To:** Mitchell, Charlotte <[cmitchell@ncuc.gov](mailto:cmitchell@ncuc.gov)>

**Subject:** Require utilities to consider grid-enhancing technologies

Dear Commissioner Mitchell,

I'm a mother who just wants a livable future for me and my generation.

I am writing to urge you to take proactive steps in requiring utilities to consider Grid-Enhancing Technologies (GETs) like reconductoring in their operations.

GETs offer a cost-effective and efficient solution to enhance our current grid infrastructure, ensuring grid reliability without the need for extensive new infrastructure development. As recent studies and industry experts have highlighted, reconductoring existing power lines with advanced materials such as composite carbon fiber wires could potentially resolve up to 80% of our current transmission backlog at a fraction of the cost of building new lines. This approach not only saves on construction expenses but also eliminates the need for acquiring new right-of-way, which can be a lengthy and expensive process.

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Thank you for your attention to this important matter.

Maura Dillon

Pittsboro, North Carolina

**Dunston, Shonta**

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**Subject:** FW: Require utilities to consider grid-enhancing technologies

**From:** Sophie LaRochelle <[sophie.i.r.larochelle@gmail.com](mailto:sophie.i.r.larochelle@gmail.com)>

**Sent:** Sunday, June 23, 2024 10:44 PM

**To:** Mitchell, Charlotte <[cmitchell@ncuc.gov](mailto:cmitchell@ncuc.gov)>

**Subject:** Require utilities to consider grid-enhancing technologies

Dear Commissioner Mitchell,

I'm a young adult who is excited to see proactive bipartisan efforts to protect and conserve our natural world.

I am writing to urge you to take proactive steps in requiring utilities to consider Grid-Enhancing Technologies (GETs) like reconductoring in their operations.

GETs offer a cost-effective and efficient solution to enhance our current grid infrastructure, ensuring grid reliability without the need for extensive new infrastructure development. As recent studies and industry experts have highlighted, reconductoring existing power lines with advanced materials such as composite carbon fiber wires could potentially resolve up to 80% of our current transmission backlog at a fraction of the cost of building new lines. This approach not only saves on construction expenses but also eliminates the need for acquiring new right-of-way, which can be a lengthy and expensive process.

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As our state faces increasing pressure to modernize its energy infrastructure while managing costs, the adoption of GETs presents a viable path forward. It aligns with the goals of promoting economic efficiency, meeting environmental objectives, and preparing for future energy challenges.

I strongly encourage North Carolina to lead the way in promoting these advanced technologies. By requiring utilities to consider and deploy GETs, we can pave the way for a more reliable, efficient, and sustainable energy future for all residents of North Carolina.

Thank you for your attention to this important matter.

Sophie LaRochelle

Knightdale, North Carolina