

“We are the Cavalry”

Marilyn Brown’s acceptance speech for the Southface Institute’s Argon Award on October 3, 2024

It is with profound gratitude that I accept the Southface Argon Award and join the ranks of my heroes from previous year’s awards. This includes its first recipient, Ray C. Anderson, Southface founder and legend, Dennis Creech, and another Georgia Tech awardee, Ryan Gravel, creator of the Atlanta beltline, plus so many more.

In case some of you do not know, argon is an inert gas that fills the space between the glass in high-performance windows. Like so many efficient technologies, it’s invisible and hard to explain, but you can see its impact on your energy bills.

I want to focus my remarks on how far we’ve come in the sustainability movement and suggest some directions for the future.

--2024 is a special year for reflection. First, it is the 60th anniversary of the passing of Rachel Carson, an ecologist and author of the book *Silent Spring* in 1962. Rachel Carson wrote about how our lakes and rivers were on fire from industrial and power plant pollution, our forests were dying from acid rain, and the stratospheric ozone hole was growing. She is credited with launching the global environmental movement.

--2024 is also special because it’s the 50th anniversary of the Arab Oil embargo, an event that brought the U.S. to its knees. In the 1970s, our principal energy source was petroleum, which was controlled by a monopoly of OPEC nations. We had little control over our oil supply chain and we were addicted to cars.

- We’ve come a long way since then. The Montreal Protocol in 1987 banned ozone depleting substances and was signed by 197 countries making it the only U.N. Treaty ratified by every nation on the planet. It has saved millions from cancer and has helped to protect wildlife.

- 194 countries have signed the 2015 Paris Agreement, and each has committed to reducing its climate pollution, to constrain global warming to 2 degrees C by the end of the century.
- On the energy front--the U.S. is largely in control of its energy future. We are the largest producer of petroleum, we export more liquid natural gas than any other country anywhere in the world, and we have growing domestic sources of solar and battery technologies.
- Renewables are reshaping our electricity and transportation industries, and the way we heat, cool, and use buildings.
- Climate smart agriculture is beginning to take hold, including agrivoltaics with crops, livestock and pollinators co-occupying fields of solar panels.
- And in the forest sector, we have manufactured timber that can store carbon for a century or more, and we have markets that sell carbon credits to the highest bidder.

Solutions are at hand and are better than ever, but the scale of the problem keeps getting bigger. Climate change continues to be an existential threat.

- Every month this summer was part of a 15-month consecutive string of warmest months on record—that is since 1850 when global records began.
- And the effects of climate change are being felt across the globe — more damaging storms, heat waves, fires, and deadly floods like those caused last week by Hurricane Helene.

These impacts are touching all aspects of society, from economic and national security to human health, with underserved communities often harmed the most.

Forecasts of future climates across the U.S. tell us that few regions are as vulnerable as the Southeast. One study published in Science, estimates that 15-20% of the GDP in the SE will be lost to climate damages by the end of the century if current climate forecasts materialize.

- One hindrance to progress is that we have encyclopedias of solutions, but we don't have roadmaps for individuals or communities. The development of local roadmaps of solutions is the challenge and the opportunity that I've been working on for more than 5 years.
- This work has been supported by the Ray C. Anderson Foundation and has involved a very state-wide team, including my core GT collaborators, Drs. Beril Toktay and Bill Drummond. (Please join me in giving the RCAF a round of applause!) If you have participated in a project with us, been to a Drawdown Georgia seminar, or subscribe to our Digest, could you please stand up?
- It is in Georgia's best interest to play a leading role in this environmental and economic transition. If we succeed, we will add jobs, recruit and retain businesses, incubate new ones, boost our state's economic output, and be safer from natural disasters.
- If we sit on the sidelines, other nations and other states will reap the benefits of this transition.

I have been blessed to have had many opportunities and privileged to have seen so much and interacted with so many experts across the globe during my career at ORNL and Georgia Tech. (I still keep a packed suitcase under my bed, just in case....) This has included working with the IEA, IPCC, EU, APEC, and more.

Locally, I'm proud to have been – and continue to be – a partner, sponsor, donor, and advocate of Southface Institute.

My collaborations began early – with the construction of the first Southface office complex in 1996, which was funded by DOE and managed by the program I led at ORNL. It was completed just in time to be part of the Summer Olympics Atlanta tour of favorite places, thanks to Dennis Creech's leadership.

I've been engaged with Southface in many ways ever since, but perhaps most important, Southface is one of my GT students favorite places to

intern and work. And that includes my most important student—daughter Katie Southworth. She would be here today, but she's busy with her current job with the Clean Energy Buyers Association. So she sent her Dad, Frank, instead. He has creds of his own, including a Brookings report on 100 U.S. metro carbon footprints. It resulted in an BBC Asia interview in Singapore, that reached an audience of hundreds of millions.

Southface is the leading nonprofit sustainability organization in the SE. Among its many contributions, Southface is training the smart workforce we need to tackle global climate change. And its current leader, James Marlow, knows how to lead and has become a great friend to me.

We both see that **the cavalry isn't coming over the hill. We are the cavalry.** We must not be passive victims of climate change.

James exemplifies my goal: to be passionate and inspire others to mobilize sustainable development goals.

I do this by teaching my students about the science of climate change, how to mitigate it, adapt to it, and motivate solutions with smart public policies. With knowledge comes the capacity to make a difference at the neighborhood scale.

And the students that I've taught at GT are making such a difference, in government, business, universities, and nonprofits. I see some of them here to today, and I am so proud of them.

Laura Heery asked me to take a moment to tell you about one recent project that illustrates these principles about making a difference.

The project is the resilience hub that has just been completed at the VICARS Community Center in Atlanta. The project leader was Michelle Moore from Groundswell, a Southface partner. During Covid, I donated my time to the design team including Chandra Farley and faculty from Atlanta HBCUs. We spent a year planning this project with funding from the National Renewable Energy Laboratory and the Georgia Public Service Commission.

Then we searched far and wide for funding for two years. Four years later, our planning has transitioned to reality. With solar panels and battery storage, there is now a near net-zero carbon, safe haven for the VICARS community to ride thru disasters. This project would not have been possible without the Inflation Reduction Act's bonus tax credits for investments in disadvantaged communities.

We have the tools and technologies, the skills and talent to dial down our carbon emissions. Remember, **“we are the cavalry.”**