How do we keep nature and biodiversity needs at the forefront of the energy transition, while still being open to deploying new renewable energy projects? Credit: Don Lindsay/The West Australian

“Energy is the golden thread that connects economic growth, social equity and environmental sustainability.”

Former United Nations secretary-general Ban Ki-moon’s quote first said more than a decade ago continues to resonate with me because it perfectly describes why energy is so important to all of us. We need it for transport, for business, for industry and, of course, our homes.

However, despite best efforts to deploy technology at scale, the transition to reliable, affordable, low carbon energy is lagging well behind where it needs to be.

This will be the focus of the State of Energy Research Conference 2024 hosted by Curtin University next week, where leading researchers and industry representatives from across Australia and beyond will come together to answer the question: how can we accelerate the energy transition?

There are, of course, many answers. While some of the delay is due to technological constraints, unless we keep people’s needs at the centre, then ensuring a just energy transition will continue to be hard fought.
This is evidenced by the delays in building new transmission lines on the east coast of Australia and overseas, not to mention deploying renewable energy projects at the scale required.

Objections raised have included potential loss of livelihoods, threats to lifestyle, poor compensation agreements, inadequate community engagement, lack of information — and fears of how the landscape might look when peppered with new infrastructure.

This is even before companies try to bring new workers to town. Many regional communities, where the developments are taking place, lack basic infrastructure and services such as housing, water, schools and access to medical facilities.

Worse still, companies arrive to regions offering benefits of new jobs when local businesses struggle to employ the workers they need to operate their businesses effectively.

It is imperative industry and government liaise with potential host communities from the outset when new projects and plans for regions are being developed, rather than present the decision as a fait accompli. Taking the time to engage communities, to understand their values is critical in moving the dial on enabling a just energy transition.

We need to be able to collaboratively work through the decisions needing to be made to understand the trade-offs involved to potentially reach an agreement. This may mean small sacrifices at the outset, for greater gains over the longer term.

But whatever the decision, it must be made transparently and inclusively so everyone impacted has a say in the outcome.

Our research shows Australians are concerned about climate change and its associated impacts — even more so when significant weather events occur such as the recent floods in the Kimberley and last year’s bushfires in the Toodyay area. However, for many Australians there is not a great deal they can do beyond buying solar panels for their homes and making some incremental energy efficiency changes.

Clearly there is a role for government and industry, but why is it taking so long? When I asked the Curtin Institute for Energy Transition’s advisory board — a group of energy sector professionals from across government, industry and the not-for-profit sector that I chair — they identified a number of structural challenges which need to be overcome.

Topics included supply chain issues, lack of human resource capability, that is, attracting and educating new workers or reskilling the existing workforce, and a need for more co-ordinated planning: fast and fair policies that prioritise action. This isn’t easy when some projects actively force trade-offs between energy and the environment as we have seen play out in recent governmental decisions.

We need those responsible for planning and decision making to work more collaboratively to ensure the right questions are being asked: how do we keep nature and biodiversity needs at the forefront of the energy transition, while still being open to deploying new renewable energy projects?
Again, this leads to the heart of a community’s acceptance of a company or project and is why we need to work with our communities to keep people at the centre of the transition.

For example, while the price of renewable energy has significantly reduced, there are transition costs that need to be taken into account — not an easy sell when so many are facing rising cost-of-living pressures.

In modern society, maintaining the status quo is always much easier than embracing change. However, climate scientists have repeatedly told us we need to take urgent action to preserve our Earth’s natural environment.

Just last September, research published in Science Advances warned human activities have caused the Earth to exceed six of the nine planetary boundaries required to sustain human society. We clearly need to do more.

There has never been a more important time for leadership, which is why the State of Energy Research conference will focus on speeding up the shift towards cleaner energy — without leaving people behind.

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