



Testimony

SB 760

Testimony Before the Texas Senate Business & Commerce Committee

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Chairman Hancock and Members of the Committee:

Thank you for the opportunity to testify today in support of SB 760. I am the policy director of Life:Powered, an initiative of the Texas Public Policy Foundation to raise America's energy IQ. We support this bill because managing the waste streams from the rapidly growing number of solar facilities in Texas is an important part of preserving our environment. This bill will also help equalize regulations for solar facilities with respect to existing decommissioning regulations for wind and thermal power plants, as well as oil and gas facilities.

As the committee considers this bill, **it is important to keep in mind that environmental protection is not just about air emissions.** Land use and water use are equally important. Given that solar facilities use roughly [10 times the amount of land](#) to produce the same quantity of electricity as a natural gas power plant,* including the land used to extract and transport the gas, the 20 GW of existing and planned solar generation in Texas will use up [far more land](#) than the infrastructure for our entire natural gas generation fleet. Nationwide, it is estimated that about 10 million tons of photovoltaic modules [will have reached the end of their lives](#) by 2050 and will need to be disposed of or recycled. The surge of solar facilities being built over the next several years in Texas will be coming offline at about that time, so now is the time to put the proper protections in place.

Solar panels are difficult to recycle or dispose of, and there are currently no adequate market incentives for doing so in an environmentally sound manner. Most of the steel used in power plants, pipelines, and so on is very easy to recycle, and we have numerous steel mills in Texas that do just that. As a former materials scientist, I have a good understanding of how difficult it is to recycle solar modules. The aluminum frames are about the only part that is easy to recycle. It is not easy to melt down crystalline silicon and reform it, and there is not yet a process for doing so that is more cost effective than making new panels. Silver and copper wiring are of some value but are not present in large quantities in each panel. Glass is of little value for recycling. Given the disincentives for proper recycling or disposal and the cumulative societal and environmental benefits of doing so, some level of protection is justified.

We require energy companies to pay for most of the environmental costs of producing their energy, and solar facilities should not be treated differently. This bill is modeled closely after [HB 2845](#) from the previous session regarding the decommissioning of wind power facilities and has a similar requirement that the developer deliver financial assurance no later than 10 years after the project commences operations. Other electricity generators face numerous regulations involving their waste streams. An entire chapter of Title 30 of the Texas Administrative Code is devoted to [regulating coal combustion waste](#), and extensive regulations exist for [plugging oil and gas wells](#). While we can debate how much energy companies should be required to do when decommissioning their facilities, we should no doubt be consistent with our policies for different energy sources.

We commend Sen. Springer for introducing this bill, and we hope the committee will consider it carefully, taking into account additional changes that may be needed to adapt the bill to the specific needs of the solar industry while not diluting the overall purpose and scope of the bill.

* See *Power Density* by Vaclav Smil, MIT Press, 2015 (<https://mitpress.mit.edu/books/power-density>).

Brent Bennett, PhD, is the policy director for Life:Powered, an initiative of the Texas Public Policy Foundation that reframes the national discussion on energy and the environment.

