**The Gazette-Mail’s Saturday editorial "Greenhouse" and its citations didn't go quite far enough. Gloom should be countered with vision and optimism.  And because I am a grandfather, I must demand a better future.   I also have, as an engineer, 50 years of facing some very challenging air quality situations. But we must, and I am optimistic that we can, transition to a clean carbon emission free future.**

**It's time for the climate change deniers to be dismissed and ignored, and for the rest of us to realize that profitable economic growth and job opportunities exist in solving the very real climate crisis.  If the horse and buggy industry including all of the suppliers to that industry in the late 1800s or early 1900s were as politically and financially powerful as the fossil fuel industry is today, we still wouldn't have automobiles and trucks.**

**Profitable job creating business opportunities do exist in solving climate change.   It has now been clearly demonstrated around the world that alternative clean energy technologies bring about economic growth, can possibly reverse climate change before it’s too late, and will improve the health of all creatures and the planet...but we must act and not tarry.  We must not let the greed driven deniers prevail, because this is the only planet we have.**

**Instead of using precious tax dollars and useless emotions based upon false economic and scientific rhetoric to sue the US EPA to prevent them from doing that which the US Supreme Court has said is not only their legal authority, but their responsibility, why not seek out those job and investment opportunities to embrace the new clean and advanced energy technologies and retrain our miners to be part of the solution. The Court clearly stated that the EPA should get on with implementing it, and to slow stop and reverse greenhouse gas emissions.  Let’s start by telling the Tomlin Administration to stop the Don Quixote fight of the Obama EPA and follow the global trends: encourage and incentivize renewable energy that many other jurisdictions enjoy.  Embrace the future Governor.**

**Where are the opportunities?**

**On a personal level for example, you and I could install solar cells on our homes is one financially sound solution.  But that can only happen if the Tomlin Administration and the Legislature would stop stonewalling and allow the widespread use of net metering.  If they were to learn from others, and  tailor an incentive program for example like the Sacramento Municipal Utility District (**[**www.SMUD.org**](http://www.SMUD.org)**) did when it offers partnerships in solar cells for churches, shopping centers, apartments and single family homes, what are the possibilities?.  There are no downsides!  It means investing in our children and grandchildren’s health…and clean safe jobs.**

**With proper design, installing solar cells on all south facing or flat roofs would create a “Distributed Power” network, where building and home owners could sell their excess power back to the grid.  This is only one program.  There are many others we should be looking at and to embrace, especially as the pressure mounts for AEP and all utilities to achieve ZERO emission from central power plants.**

**In Germany, farmers have been incentivized to build solar arrays in their pastures, so cattle and sheep can still graze, and the farmers now has additional income as they sell the excess back to the grid.   The growth of Distributed Power in West Virginia would create thousands of new local jobs as it has in Germany.  So far, they have created 25,000 new jobs in Germany...and they have lower sun indexes of availability than we do in West Virginia.**

**Here is another example.  In Alloy West Virginia, silicon is gathered and processed, but then exported out of the state to produce solar cells elsewhere. As a member of the WV Public Energy Authority, I recommended this years ago...but was told *"Oh no, we could not do that...it's too much of a threat to coal!"  WHAT?***

**Why is the WV Department of Commerce not romancing the solar cell manufacturing industries so that the clean safe jobs in those industries can be a place for what is already an increasing problem here, displaced unemployed miners?**

**Why did they not pursue the Spanish Wind manufacturing firm who subsequently chose Pennsylvania to locate their North American manufacturing plant?**

**Coal is not cheap power.  It is quite clear from many jurisdictions beyond our borders that coal-fired power is not economically viable when all of the externalities and legacy costs are added.  Our own WVU scientists and others have documented this quite clearly.**

**Even China is realizing, as Beijing becomes more and more uninhabitable, that solar energy is the future. They are investing more into solar energy than any other country, and beginning to curb, possibly shut off, all new coal fired power plants.**

**Saudi Arabia is investing more into solar energy research than oil! The Minister of Energy was asked “Why?” (I’m paraphrasing) “Oil is finite and dirty. Solar is infinite and clean…next question?”**

**My birth home, the province of Ontario in Canada, has in its provincial budget both the costs of power generation and distribution as well as universal single payer healthcare. (What a concept!)   In  2005 the Provincial Premier (like our Governor) required an examination of why the health care costs of those people living in the air shadows and proximity of coal-fired power plants were significantly higher than elsewhere in the Province.**

**They determined that when you are truthful, and add the cost of healthcare directly attributable to coal-fired power plants, they are far more expensive than renewable energy alternatives.  As a result, by 2012, Ontario has now shut down all of their coal-fired power plants throughout the province and has built solar, wind and geothermal systems to replace them, including distributed power networks.  And their experience to date has even allowed for lowered electric rates, and wind towers and solar cells are everywhere!  By the way, they bought most of their coal from West Virginia.**

**West Virginia can wake up to the trends that are clearly under way around the globe or, like the horse and buggy Industry who fought to keep speed limits of automobiles at 5 mph, they can deny the science and the true economics of the alternatives. The literature is overwhelmingly clear that economic opportunities for jobs and clean air that all of us seek, require and want will be the result. Of course we all know why the West Virginia administration is taking this denial posture, because they are bought and paid for by the fossil fuel industry, primarily the "Friends of Coal"**

**And while they are a small powerful and well financed minority in this state, it's time for the Friends of the Earth, those who believe we should treat the planet as if we intend to stay, to demand that the administration embrace what is clearly an economic future that is safe clean and profitable.  Why? So we and the planet can continue in balanced life for millenniums to come.**

**Even the Province of Quebec transitioned from an overwhelming dependence on severance taxes from asbestos mining.  I lived there then as a young “fresh out of college” engineer, and saw it happening.  Back in the 1960's!  But Quebec politicians had vision and were realistic about what had been a cash cow, but was dying.  They thoughtfully transitioned to cleaner safer jobs and technologies as all of society realized the truth about asbestos and found less costly, safe alternatives.  Thermal coal is our asbestos.**

**And like the economic transformation from horse and buggies, and in my case from the slide rule to the revolutionary economic boom of the information age and Internet technologies, we can transition, not overnight, but thoughtfully planning to retrain miners encourage entrepreneurs to start all the new businesses that renewable energy will spawn.  The science is clear.  We must act with all deliberate speed to transition from the Neanderthal use of coal to the bright, clean, safe and lower-cost energies that are clearly are the future.**

**We will create more jobs as thermal coal continues to decline and end the treatment of miners the way they always have been, as disposable necessities. But we need vision and leadership, not Deniers and Don Quixote Attorney Generals.**

**It’s a bright future out there...all we have to do is reach for it.**