

4946 W. Sundance Way
Tucson, AZ 85745

January 2, 2014.

Mayor and City Council
City of Sierra Vista
1011 N Coronado Dr
Sierra Vista, AZ 85635

Dear Mayor and Council:

Please keep the current restrictions on electronic (LED) signs in place. The beauty of Sierra Vista and its night sky are hard to find elsewhere, electronic signage is not.

I worked on site protection matters for the Smithsonian Institution's Whipple Observatory on Mt. Hopkins for more than three decades. In that time, the awareness and support of Southern Arizona communities for dark skies have made this a haven for world class astronomy. Astronomy is a strong economic and educational driver which makes it valuable to our state.

Sierra Vista has an outdoor lighting code which calls for lights to be installed so that the light goes down to the ground where it's useful and stays out of the sky where it is wasted. By their nature, electronic signs are unshielded light sources - at least half of the light emitted by the sign ends up in the sky. In addition, the potential brightness of electronic signs is troubling. Electronic signs can be as bright as 5,000 to 6,000 nits for daytime use. This is as much as 60 times brighter than a night-time limit of 100 nits. Since every electronic sign has daytime brightness capability, this means an installed base of enormous night-time light potential.

As a member of the City of Tucson Citizen's Sign Code Advisory Committee, I can tell you that enforcing regulations on installed electronic signs is extremely difficult. Unlike other signs, the light intensity and display time can be changed at a keystroke. The experience in Tucson has not been good in spite of manufacturers' assurances that signs would meet code settings.

If Sierra Vista were to allow these signs, it would be well to add a fee to electronic sign permits to cover the cost of a night-time inspector and a luminance meter to measure sign brightness. This should be coupled with limits on sign area and penalties substantial enough to be a deterrent to non-compliance.

Other considerations for this sign type:

- Should the light emitted by electronic signs be counted in the lumens allowance of the Outdoor Lighting Code?
- Does the Energy Code address energy use by electronic signs?
- Do such signs add to light trespass, driver distraction and visual clutter?

Sierra Vista has had an Outdoor Lighting Control Code in place since at least 1996. Please continue the tradition of preserving dark skies for professional and amateur astronomers, tourists, residents and other admirers of the natural beauty of Sierra Vista and its surroundings

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Sincerely,

A handwritten signature in black ink that reads "Daniel K. Brocius". The signature is written in a cursive style with a large, sweeping initial 'D'.

Daniel Brocius

Former Board Member International Dark-Sky Association (15 years)
Tucson Citizen's Sign Code Advisory Committee
Smithsonian Astrophysical Observatory (retired)