Technical Assistance Request – Ring CSP

1. **Mirrors:** Technical assistance would be requested in the area of creating curved mirrors. The primary mirrors for this application would be a conical segment with the interior of the surface made to be reflective. Fabricating custom mirrors would be assistance in this project that would be welcome.

2. **Solar Tracker:** Technical assistance would also be requested in fabricating and designing secure dual-axis solar tracker that would work for this particular structure which is different than PV or dish type CSP tracking systems. The tracker would have a more exacting need for solar tracking as the focus on the central axis would need to be continuously maintained and the structure of the tracker would need to be robust enough to death with weather, etc.

3. **Testing Performance**: Technical assistance would also be useful in providing modeling, calculation and review of the actual temperatures and efficiencies achieved at the axis point.

4. **Optic analysis**: Technical assistance in optic analysis of the system would be helpful in considering scalability of the Ring CSP system. The reflection of the solar disc may cause some spreading from the focal axis. There may be a loss of concentration for larger and larger radius of the Ring CSP because of some angular dispersion of the half degree of the solar disc as it is reflected. I hypothesize that this would only occur in the vertical axis and not the horizontal

axis, but accurate assessment and measurement of this factor would be an important factor in determining the optimal size of a Ring CSP system.

5. **Product Development**: Technical assistance in creating as marketable Ring CSP collector system that is "RAM" tested- tested for reliability, availability and maintainability. Assistance with market applications such as solar heating or other applications may be helpful.