

1. It is a fact that capex per MW of few renewable energy technologies is reduced significantly over the years but the change in tariff rate has also been reduced drastically. Tariff mechanism has also been changed from preferential tariff rate to the rate discovered in the reverse bidding process. This has introduced a competitive edge among the developers with minimum profit margins. Besides, over the years high energy yield areas are being acquired and low energy yield areas are left for project development, which is throwing challenges for financial viability of a project.
2. Secondly, the technology is also evolving towards less environmental impact like waterless cleaning of solar module, improving energy harnessing efficiency like introduction of bifacial solar module, sun tracking system of solar module, optimum use of project land for other use like vegetation under the solar panel etc. Technological innovation is also going on towards reduction of life cycle emissions reduction of these power plants.
3. Market of other green attributes is also not supporting as the clearing volume has drastically going down along with the reduction in price as well. This is happening in both domestic and international market. Financial additionality of the grid connected renewable energy projects exist and require carbon revenue to make the projects financially viable.
5. Power deficit countries are aggressively implementing both traditional fossil fuel-based power plants along with less capacity of renewable energy power projects. Traditional power plants give the comfort of PLF, which major renewable technologies in the market today cannot. To incentivize and promote the RE sector its crucial to support the RE projects providing premium to promote the industry to look and rely more upon the RE option to fulfil their requirements.
7. Reverse bidding projects should be treated as separate investment climate compared to preferential tariff and captive project while doing Common Practice Analysis (CPA). So, the projects commissioned under reverse bidding process only to be considered for CPA analysis.
8. Hybrid projects are also to be treated separately for additionality test and cannot be compared with the independent solar and wind projects.
9. BESS and Pump storage projects are also facing different challenges other than financial viability issue. Each project is unique in nature and face different challenges while executing. These challenges lead to significant miscellaneous expenses and impact in financial additionality.
10. In conclusion, it is very much clear that grid connected renewable energy projects are still facing financial challenges in comparison to the fossil fuel-based power plants. These technologies are still evolving towards betterment in all aspects and making it a financially viable technology. But as on date the projects are lacking financial sustainability.