

In an overly constrained world, community-based plans for multiple future scenarios are essential.

In fact, the process itself is important and valuable (we can all point to bookshelves full of past analysis or even past plans, but this doesn't mean we don't need a new one), independent of the actual written outcome. It is the process of open discussion and consideration from many angles, which enables the community to express ideas and develop scenarios. An important goal of any plan (or set of scenarios), is to be able to rally long-term community support (for obvious political and funding implications). To do this, fair consideration of all aspects of "fusion energy development", including hidden assumptions, is required.

Here are some high level hidden (and sometimes glaringly obvious, but nevertheless often overlooked) assumptions which must be re-examined:

- 1). Larger is better.
- 2). The answer is a tokamak.
- 3). Materials engineering can make a solid wall system survive neutron and plasma damage.
- 4). The answer is DT fusion.
- 5). We are one-step away from a DEMO, which is one-step away from a commercial prototype.
- 6). A DEMO is must be done, even if it's technology is clearly too costly compared to other alternatives (ie, not economical).
- 7). A DEMO will be "steady-state".
- 8). RAMI (reliability, availability, maintainability, and inspectability) issues can be solved "later".
- 9). Focusing the majority of our efforts on the "best present horse" in the race is ok. (In fact, a simple examination of Technical Readiness Level's tells us that we aren't there yet).
- 10). Stuff is so expensive, we can only afford one path forward. (What if "the one path" forward is in fact most definitely not affordable?.....then, Look For a Different Path!)

If you have never read the 1983 MIT Technology Review article (and even if you have), entitled "The Trouble with Fusion" by Prof. Lawrence M. Lidsky

<http://www.askmar.com/Robert%20Bussard/The%20Trouble%20With%20Fusion.pdf>

Read it again, with an eye and ear towards what he said then, and what we face now, 30 years later. There are reasons we (fusion research) aren't included in governmental energy policy action plans, or barely mentioned in passing. It isn't only our lack of a demonstration of a near term functioning product. If the product of our vision is a product that no one wants to buy?..... Then we have to structure the program for the long haul, and broad scope....much longer and broader than ITER.