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The fusion hybrid, a new (old) development plan for fusion WALLACE MANHEIMER, Retired from NRL — For world development to proceed, mid-century energy requirements are daunting. Estimates are that by 2050, the world will need 10-30 terawatts (TW) of additional energy (we generate about 13 TW today, mostly with fossil fuel). However to avoid possibly disastrous climate change, this additional energy should be carbon-free [1]. Another study looks at how this might be accomplished [2]. The startling conclusion from Ref. [2] is that options are few, and any option would require greater changes to the world's energy systems than have occurred in the last fifty years. This paper proposes that fusion can be a player in the quest to power the mid-century world, but only by contributing to the fission/fusion hybrid. My own very preliminary study indicates that a fusion hybrid could deliver energy to the world in a timely manner, and in an economically and environmentally acceptable way.

[1] M. Hoffert et. al., Nature, 395, 881, (1998)
[2] M. Hoffert et al, Science, 298, 981, (2002)

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