

# Functional Roadmap for Commercial Cold Fusion Systems

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Nearly everyone interested in cold fusion is aware of the incremental progress by Forcardi, Rossi, Jet Energy, Defkalion Green, Egely, and others to commercialize this technology. Important details have been incorporated into patents and patent applications.<sup>1,2,3</sup> In comparison to earlier information, however, we attempt here to step-back for a moment to provide a general vision of functional activities that need to be performed by commercial cold fusion systems. The reason is that consideration of the details of such functional activities is a crucial step in developing commercial systems: it enables a forum and opportunity for discussing all of the operational (engineering) tasks that must be performed by the system and then flowing down related information into design specifications for the systems' components. Gaps in the development process can be expected if some of the functional activities or tasks are omitted and not considered early on. The flow-down of functional activities and tasks to component design specifications is also required to support subsequent processes involved in system testing and manufacturing. This paper provides examples of six (6) key functional activities and fifteen (15) operational tasks that must be performed.

Our discussion in the ICCF-23 meeting this year is critically important as only eight (8) years are available to develop a robust energy solution to global warming/climate change. The drop dead date is 2032.<sup>4</sup> Commercial cold fusion systems may be the only realistic option since nuclear power plants are very expensive to build and operate. Nuclear fission plants are also not acceptable due to radioactive pollution they produce. Hot fusion cannot be seriously considered since it is many decades from being commercialized.

For commercial systems to be developed in this short time, scientists in this community must be more willing to collaborate and become part of engineering development efforts within their countries. Rather than continuing solely with their individual laboratory research efforts, the scientists must bring their current knowledge into focused systems engineering activities and then perform directed research to address areas supporting the engineering process. Financial support can be expected from national and state governments with greater emphasis on the importance of cold fusion as a solution to climate change. International support can also be expected for the best commercial system concepts.

## References:

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