

Public Comment Remarks at FESAC Meeting March 12, 2015
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I wish to comment on the subject of the fusion community "speaking with one voice." The subject was raised by Dr. Pat Dehmer this morning. She said we were not so doing and that this was harming the program. She remarked on the criticisms some members of the fusion community expressed last Fall to reporters for Science magazine and other publications, aimed at the FESAC Strategic Plan document and process. Her characterization of the fusion community as being divided was also echoed by Dr. Orr in his presentation this morning. My impression is that he got that opinion and characterization from Dr. Dehmer. Dr. Orr said the fusion community had "recently shown itself to be openly divided to the degree that these divisions have shown up in the press. That has not made our job of supporting the budget easier." The result is that it appears to me that the fusion community is viewed up the line at DOE as "fractured" and in disarray. I think this is a "bum rap."

It is true that the FESAC Strategic Plan of last Fall was controversial. FESAC itself was not able to approve it unanimously. In her remarks this morning, Dr. Dehmer herself publicly criticized the FESAC Strategic Plan report, saying that she did not like that FESAC separated the research topics into "Tiers". She said this made some topics appear to be "second class" citizens. Shortly after last Fall's FESAC meeting, Dr. Synakowski told the fusion community that the Fusion Nuclear Science Facility (FNSF), a key element in the FESAC plan, would not be acceptable to the Administration as the part of the DOE's plan. The FNSF had been included in the FESAC plan as a facility that could be proposed for construction at the end of the ten year period. It "anchored" the Plan, providing an exciting new facility and positioning us to get back into the energy game. Over the past several years, many people and institutions in the community, including PPPL and GA, had agreed to advocate this type of device as a future facility goal, although a detailed design had not yet been agreed to. So, clearly, DOE (not just the fusion community) did not like aspects of the proposed plan. The criticisms from the community were not primarily aimed at technical aspects of the plan, but rather at the charge and process that led to controversial priorities, and also at the last minute disenfranchisement of many of the FESAC members, preventing them from voting on the plan. In this circumstance what, then, did DOE expect the fusion community to do? Just smile at reporters and say everything is fine?

The fault here, if there is one, is not with the fusion community. It stems from the charge that Dr. Dehmer gave to FESAC that overly constrained the preparation of the Plan in the first place. The FESAC was not asked for a complete fusion program strategy (ITER was excluded and they were not allowed to look beyond the next ten years) and it was not allowed by DOE to look at what the program could accomplish if more generous funding were to become available. The FESAC was given several constrained budgets to work with and asked to prioritize within each. Prioritization by a subset of individuals of fusion program elements within a set of constrained budgets, however well intentioned, was bound to create conflict. The FESAC panel felt it was not

authorized to prepare a more visionary plan based on readiness and opportunity, or to envision the possibility of increased funding that might lead toward more ambitious fusion energy and fusion science and technology goals. Lack of an exciting mission statement was one of the aspects of the plan that was criticized by the fusion community.

A few years ago the Administration proposed deep cuts in the domestic fusion program in order to increase funds for ITER. The community spoke with one voice in opposition to this proposal and Congress provided enhanced funding. Since then the Administration has continued to request funding for the domestic fusion program below the Congressional appropriations of the previous year. The fusion community continues to speak with one voice against these cuts. So I believe the fusion community is quite united (and speaks with one voice) in its view that the domestic fusion program must be broadly based scientifically while continuing to move towards an energy goal as quickly as funding permits.

This morning Dr.Orr stated, "The fusion community has been slow to present to the outside world a unified view of its vision for the future," He said, "I know this is easier said than done, but it is actually very important." The FESAC is the only official advisory body for fusion the DOE has. FESAC needs to somehow convince DOE to give them a charge that is not constrained and to recommend a strategy to move toward the energy goal, while giving near-term priority to the science and maintaining a strong university program that is essential for both the near and long term. The FESAC needs to think broadly and creatively on ways to put some real momentum back into the fusion effort.