

Abstract Submitted
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C2 Lithium Campaign Power Balance ERIK TRASK, BIHE DENG, JON DOUGLASS, EUSEBIO GARATE, DEEPAK GUPTA, SANGEETA GUPTA, MICHEL TUSZEWSKI, Tri Alpha Energy, AND THE TAE TEAM — Several key changes have led to record performance of the Tri Alpha Energy's (TAE) C2 Field Reversed Configuration (FRC) device. Wall conditioning changes from titanium to lithium have decreased radiative losses, while changes in the magnetic field of the SOL and jet have substantially increased energy confinement times. An overview of 0D power flows and timescales will be presented demonstrating that ions behave classically, that anomalous electron losses have been substantially reduced, and that plasma sustainment will require modest increases in heating power. These observations will be quantitatively analyzed as well as compared with both theoretical modeling of the TAE transport and numerical simulations (Q2D).

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