

## **Status of R and D Activity for ITER ICRF Power Source**

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India is in-charge for the procurement of ITER ICRF sources (1 Prototype + 8 balance units) along with auxiliary power supplies & Local Control Unit. Based on overall ITER ICRF source [1, 2] requirement (2.5 MW per source at 35-65 MHz/CW/VSWR 2.0), which is very stringent in nature, specifications are generated for various sub-systems/components etc. Constraints on ICRF source components are identified, in particular concerning the final stage tube of the amplifier. To support the design phase, an R&D programme has been set up. Under this particular programme, performance of worldwide very high power (~ MW) vacuum tubes in MHz frequency range will be tested at Indian test facility & will be qualified for ITER application. This paper will describe the present status of R&D programme to identify & resolve major technological challenges involved.

[1] B. Beaumont et al, SOFE 2009

[2] F. Kazarian et al, SOFT 2010