

## **Upgrade to the ECH System on the DIII-D Tokamak**

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A significant upgrade to the 110 GHz DIII-D ECH system was begun last year. Three short-pulse ( $\leq 2$  s) Gycom gyrotrons were replaced by 3 CPI diode gyrotrons with acceptance parameters of 1.0 MW, 5 s and designed pulse length of 10 s. A CPI gyrotron with depressed collector, which has demonstrated 1.3 MW for short pulses, is being tested. Two CPI gyrotrons, which have experienced collector failures, are being repaired. For the 2006 experimental campaign, the DIII-D system is planned to comprise 6 long-pulse CPI gyrotrons with 1 Gycom gyrotron available in reserve. Work supported by USDOE DE-FC02-05ER54698.

Topic: 6 Millimeter wave systems