Despite an increasing body of research that challenges native speaker hegemony, English-only ideologies remain strong in language policy and education, including English-medium instruction (EMI). While first language (L1) use in second or foreign language (L2) classrooms has been energetically debated in the field of second language acquisition, the topic has emerged again in educational debates alongside the current push for EMI in higher education. As opposed to EFL contexts, where the curricular outcome is the learning of the target language, in EMI contexts the ultimate goal is content learning rather than language acquisition. Given this aim, stakeholders should not be opposed to the use of L1 if it facilitates the teaching and learning of content material (Rose & Galloway, 2019). However, policies guiding the implementation of EMI in higher education are often motivated by political ideologies that insist on English-only or English-always use in the classroom (Kirkpatrick, 2017). In this presentation, I argue that EMI should not be interpreted as anglophone-informed instruction but that multilingual practices should be embraced as a pedagogical tool. I also argue that EMI education should not be seen to transplant L1 practices into L2 educational contexts. I show how Global Englishes research might be an appropriate lens within which to critically explore what English is used in EMI, highlighting that the ‘E’ in EMI should not be interpreted to mean so-called ‘native’ English, nor should it be interpreted as ‘English-always’. Instead of adhering to a monolingual ideology, teachers and students should be encouraged to use and embrace the multilingual resources available to them, including the entirety of their linguistic repertoires, and their identity as multicomponent language users. I support these claims by drawing on a body of EMI studies I have conducted in Japanese higher education which investigate issues at the nexus of policy and practice.