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A Freeze Today, Not in the Future, to Iran's 20 Percent Enrichment

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On April 8, Tehran Iranian Student News Agency (ISNA) conducted an interview in Farsi with the head of Iran's nuclear program, Fereydoun Abbasi-Davani, during which he [offered to cap](#) Iran's production of 20 percent low enriched uranium (LEU) when Iran has stockpiled enough of the fuel it needs to run the Tehran Research Reactor (TRR) and a second research reactor not yet declared to the International Atomic Energy Agency (IAEA). He stated that Iran would continue enrichment to 3.5 percent for power generation. ISIS calculates that Iran has already stockpiled enough 20 percent LEU to run the TRR for 5 to 10 years at 5 mega-watts-thermal (MW-thermal) and 10 to 20 years if the reactor operates at 3 MW-thermal, its current power level (See ISIS's more detailed calculations about the fuel requirements of the Tehran Research Reactor [here](#)). Therefore, Abbasi-Davani's offer to halt 20 percent enrichment at some point in the future should not be accepted and the P5+1 should reject anything less than an immediate freeze in negotiations with Iran.

The P5+1 should also not accept a plan to build a second research reactor as a reason to continue 20 percent LEU production. Abbasi-Davani announced that Iran is planning to build a 10 MW-thermal pool type reactor, but it has not begun construction, nor has it even selected where to build it. Thus, any fuel loading of this second reactor is years away.

This proposed new reactor would require each year 2-3 times the amount of 20 percent LEU as the TRR. Thus, Iran could argue that it needs to produce considerably more 20 percent LEU than it has today, even though any actual new need for 20 percent LEU is far off in the future.

On balance, Iran does not need to continue production of 20 percent LEU for the TRR or start new production for another research reactor. Its continued enrichment up to 20 percent poses a [growing threat for breakout](#).

Abbasi-Davani's offer appears to be part of Iran's ongoing effort to hedge its nuclear options, or further its civilian nuclear program within the confines of the Nuclear Non-Proliferation Treaty, while maintaining the option to break out and make nuclear weapons. Iran's current stockpile of 20 percent LEU, if further enriched, would only provide about half of the weapon-grade uranium needed for a nuclear device. However, as time passes and with continued operations at the Fordow Fuel Enrichment Plant, Iran has the capacity to significantly expand its 20 percent LEU stock and its capacity to make more. It would also shorten the time necessary to use this stock to further enrich up to weapon-grade.

A prominent Iranian politician has already [proclaimed](#) that Iran has the technological capability to make nuclear weapons, and that, "There is a possibility for Iran to easily achieve more than 90% enrichment." Adding to a stockpile of 20 percent enriched uranium is therefore precisely what the P5+1 [wants to avoid](#) in order for Iran to prove its nuclear intentions are strictly peaceful.

Abbasi-Davani may view the upcoming negotiations as a chance to entrench Iran's continued 20 percent enrichment and delay any talk of a halt to production for some day in the future when Iran decides it has accumulated enough of the material. In the meantime, Iran would expand its ability to break out in meaningful ways. The P5+1 should reject any Iranian offer that argues for continued production of 20 percent LEU.

Read more on ISIS's recommendations for the upcoming P5+1/Iran negotiations in its report to the United States Institute of Peace: [*Preventing Iran from Getting Nuclear Weapons: Constraining Its Future Nuclear Options*](#). See also the recent Council on Foreign Relations's Expert Roundup: [*Iran Talks: What Should Be on the Table?*](#)