

## **Building a nuclear plant? Go online**

## March 10 2020, by Peter Grad



Credit: OPEN100

Bucking current trends toward safe, clean and renewable energy resources, a Silicon Valley entrepreneur last week launched an initiative to reignite enthusiasm for nuclear energy.

Robotics expert Bret Kugelmass set up a website containing detailed blueprints, engineering studies and extensive economic analysis for the construction of nuclear plants around the world. This is the first initiative



of its kind, and access to all data is free.

Kugelmass says <u>nuclear energy</u> alone has the potential to provide lowcarbon footprint electricity to meet global energy demands. But he says it can be achieved only with an enormous increase in the number of <u>nuclear facilities</u>.

One thing standing in the way of such development, he says, is cost.

"Despite being the single largest source of low-carbon electricity generation in the United States," Kugelmass says, "over time the trend toward building ever larger and more complex reactors has made nuclear energy uncompetitive."

Blueprints posted on his website claim a plant can be constructed for as little as \$300 million. It would take as little as two years to build.

The project, called OPEN100, "will accelerate the development of nuclear power, offering the world an affordable alternative to fossil fuels," he says. The effort is a project of the Energy Impact Center (EIC), a research institute founded by Kugelmass to find solutions for climate change and global decarbonization by 2040.

The report is the culmination of 1,500 interviews and visits to more than 100 nuclear facilities in 15 countries by EIC research staff.

The initiative arrives more than 40 years after nuclear safety was thrust into American consciousness in 1979 when a reactor at Three Mile Island in Pennsylvania began melting down as safety features failed. Two million people were exposed to small amounts of radiation. The cleanup lasted 14 years and cost an estimated \$1 billion. As a result, no <u>nuclear</u> <u>plant</u> begun after 1974 was completed since then.



Other concerns about <u>nuclear safety</u> include nuclear waste storage, nuclear proliferation, terrorist threats and cancer risks.

Kugelmass is undeterred. He singles out the world's most frightening nuclear event, the series of meltdowns, radioactive gas releases, fires and explosions in 2011 at the Fukushima Daiichi facility in Japan, triggered by an earthquake and tsunami. He notes that there were few or no fatalities directly linked to radiation (estimates vary widely) and suggests that risks of death or harm at nuclear plants are no different from other types of industrial sites.

"Nuclear power isn't just part of the solution to addressing climate change; it is the solution," he says.

"We will show the world there's a bright future for nuclear energy. Not only can we address <u>climate change</u>, but <u>energy</u> poverty, clean air and clean water, too" he added. To that end, Kugelmass simultaneously launched a for-profit spinoff called Last Energy that will team up private investors with global nuclear projects.

## More information: <a href="http://www.open-100.com/">www.open-100.com/</a>

www.energyimpactcenter.org/

medium.com/@EnergyImpact/savin ... -easier-10a57b45e108

© 2020 Science X Network

Citation: Building a nuclear plant? Go online (2020, March 10) retrieved 5 May 2024 from <u>https://techxplore.com/news/2020-03-nuclear-online.html</u>

This document is subject to copyright. Apart from any fair dealing for the purpose of private



study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.