

## Ciaran Mcgoldrick

---

**From:** Chief Executive  
**Sent:** Friday 31 January 2020 08:45  
**To:** Ciaran Mcgoldrick  
**Subject:** FW: CNFE fact check: Rolls-Royce plans to build mini-nuclear plants by the end of the decade.

Good morning Ciaran,

Please see below correspondence from Cities for a Nuclear Free Europe for noting at your next SPC.

Kind regards,

Caroline

Chief Executive's Office | Dublin City Council | Block 4, Floor 4, Civic Offices, Wood Quay, Dublin 8 |  
Tel: 01-222 2802 | Email: [chiefexecutive@dublincity.ie](mailto:chiefexecutive@dublincity.ie) | Fax: 222 2097

---

**From:** CNFE [[cnfe@goja.or.at](mailto:cnfe@goja.or.at)]  
**Sent:** 31 January 2020 08:30  
**To:** [cnfe@goja.or.at](mailto:cnfe@goja.or.at)  
**Subject:** CNFE fact check: Rolls-Royce plans to build mini-nuclear plants by the end of the decade.

Dear Mayor, dear Councillor, dear Colleague,

Last week the engine manufacturer Rolls-Royce has told the BBC that it plans to install and operate factory-built power stations by 2029. Mini nuclear stations can be mass manufactured and delivered in portions on the back of a lorry, which makes costs more predictable. Is this concept a new way to make nuclear energy cheaper, faster to be built and safer?

We of CNFE have studied the facts behind the Rolls Royce announcement.

Rolls-Royce is not the first and not the only nuclear affine industrial company to announce the mini-nuclear power plants. A quick internet search (Wikipedia: small modular reactor) shows not less than 40 other producers of the small modular reactor.

How is this project to be assessed? We do assume that Rolls Royce would be able to stay within the time frame for building the Mini Nuclear Power Plant by 2029, in spite of all previous experiences.

The first advantage of mini-nuclear power plants should be the cost reduction through series production. The series production of nuclear power plants is already an approach from the 1970s. Unfortunately, it never was realised due to the location-specific circumstances for each plant to be taken into account. And the small number of a few dozen reactors of the same type is also not suitable for industrial series production. Whether Rolls-Royce will now build several hundred mini-NPPs (NPP = Nuclear Power Plant) and thus industrial series production would basically possible is not assessed here. The 10 to 15 planned mini NPPs are in any case not enough for series production.

The contribution to climate protection, power generation or whatever of 15 mini-plants of 100 MW will not even correspond to a planned EPR at Hinkley Point C which is planned to produce 3,200 MW.

The seemingly small space requirement per mini-NPP can be put into perspective quickly if you consider the space requirement per installed capacity. Rolls Royce states that their plant of 100 MW will take 1/16 of

the space Hinkley Point is taking. Thus, to achieve the same capacity of Hinkley Point C, they would occupy double space, not less.

It is a fact that the transition to small units, as everywhere in energy technology, will cause the installation costs per installed capacity to rise sharply.

Finally, the safety aspect. The fact that the physical protection of around 15 objects is more difficult to guarantee than that of a single one should also be taken into account.

The waste issue, the transport issue, and the fact that nuclear is not carbon neutral are completely ignored in the plans of Rolls Royce.

So if you thought that Hinkley Point C is the most expensive facility for electricity production in the UK, Mini-NPPs - should anyone seriously consider building one - will prove otherwise.

Please do not hesitate to contact us if you have question or remarks.

Kind regards,

Jan Dictus  
Secretariat Cities for a Nuclear Free Europe  
+ 43 664 886 04274  
[jan.dictus@goja.or.at](mailto:jan.dictus@goja.or.at)  
[www.CNFE.eu](http://www.CNFE.eu)

**Smaoinigh ar an timpeallacht sula ndéanann tú an ríomhphost seo a phriontáil. Please consider the Environment before printing this mail.**