

Scientific Research and Experimental Development: Is improving cost efficiency relevant?

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In *6398316 Canada Inc. v. The Queen* (2021 TCC 17), the issue was whether cost concerns could constitute technological uncertainty for the purposes of the tax credit for scientific research and experimental development (SR & ED). In finding that the construction of a uniquely energy-efficient house at a price comparable to that of a “regular home” was not SR & ED, the court underscored the importance of highlighting the technological aspects of the uncertainty that the SR & ED work seeks to overcome, even if cost efficiency is a critical part of the advancement being sought.

In 2012 and 2013, 6398316 Canada Inc. designed and successfully constructed a house that required no grid-tied fuel for heating and cooling (such as electricity or natural gas) at the same cost as that of a regular home. The house was designed and built to harness temperature and other fluctuations in the natural environment in order to maintain a constant indoor temperature. The house was completed in late 2013, and the appellant claimed certain construction expenses as SR & ED. The minister denied all of the appellant’s expenditures related to the project.

The TCC’s decision

In rendering its decision, the court applied the five-part test for SR & ED set out by Bowman J in *Northwest Hydraulic Consultants Ltd. v. The Queen* (1998 CanLII 553 (TCC)), focusing on whether the project addressed “scientific or technological uncertainty.” The appellant argued that the technological uncertainty was whether it could construct a house that did not require a furnace at a price point similar to that of a traditional house; thus, the technological uncertainty as framed by the appellant was the cost.

In concluding that the work did not constitute SR & ED, the court said that “[c]onceptually there is no technological aspect implicit in the notion of an item costing or priced at ‘x’ rather than ‘y’ dollars”: the formulation of technological uncertainty as solely a matter of cost “misses [the] *Northwest Hydraulic* target,” which requires a hypothesis specifically aimed at a technological uncertainty (paragraph 31). The court said that although SR & ED can also give rise to lowered pricing or to cost efficiency, cost efficiency in and of itself cannot constitute technological uncertainty.

In our view, when read in context, Russell J’s rejection of the appellant’s position in *6398316*

Canada Inc. is not so much a rejection of the proposition that cost or pricing may be relevant in an SR & ED project as it is a refusal to accept that cost concerns, without more, indicate that there is a technological uncertainty to be resolved. This is consistent with the recent decision in *National R&D Inc. v. The Queen* (2020 TCC 47), which involved the development of a computer program to automate certain portions of filing SR & ED claims with the CRA. In that case, Lafleur J affirmed that “economic considerations” imposed some uncertainty and that “[b]usiness constraints and the business context of the taxpayer that is claiming the SR&ED deduction and credit are relevant factors to take into account when considering the criterion of technological uncertainty” (paragraph 44).

Key messages from the case

In our view, 6398316 *Canada Inc.* has three key messages:

1. Taxpayers should be careful to frame the hypothesis and technological uncertainty in a manner that highlights technological rather than economic obstacles. While there is no need to deny that cost may have motivated the SR & ED work or that it was a relevant consideration, as was evident in 6398316 *Canada Inc.*, emphasizing cost can open the way for the court to give short shrift to obstacles present in technologies themselves; and, in many cases, it does an injustice to the technological advancements sought in SR & ED projects.
2. Taxpayers should provide a clear description of the project’s technological uncertainty and advancement. The CRA, and at times the court, has a tendency to apply the *Northwest Hydraulic* factors to the individual activities undertaken to advance a project. This tendency was on full display in 6398316 *Canada Inc.*, where the court’s decision focused on the fact that specific activities or materials used in the project were known, rather than on the novelty of the project as a whole (that is, how those activities achieved the technological advancement sought by the project). In doing so, the court undercut its own acknowledgment that SR & ED can utilize and build on existing technologies. A clear articulation of technological uncertainty and advancement at the project level is crucial in moving the analysis away from a dissection of component activities devoid of a larger context.
3. The case shows the importance of expert evidence, the absence of which Russell J noted throughout the decision. SR & ED appeals often involve complex scientific or technological issues, and it is essential that taxpayers call expert witnesses who can speak to the validity of the purported advancement. Such evidence is critical to a judge’s ability to assess whether the project involves the resolution of a scientific or technological uncertainty.

When businesses undertake the development of new or improved technological processes or procedures, they necessarily take cost into consideration. The inclusion of “experimental development” (often referred to as “shop floor SR & ED”) in paragraph (c) of the SR & ED definition illustrates the legislative recognition that SR & ED does not take place in a vacuum. To conclude that cost efficiency is not a relevant factor or that it somehow disqualifies work from being a valid SR & ED project would be inconsistent with the intention of the SR & ED regime, which is to encourage Canadian businesses to undertake research and development in Canada. The legislation is aimed at making Canadian companies internationally competitive in research and innovation. In reviewing SR & ED claims, the CRA and the courts should always be cognizant of the benefits resulting from research and development in

Canada, which is crucial to increasing the economic growth of our country.

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