Intellectual Property Infringement Remedies in Canada

Non-Infringing Alternatives and Non-Infringing Options

A Reference Guide of Principles and Case Law

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1. INTRODUCTION

Since the publication in 2018 of *Calculating Monetary Remedies in Intellectual Property Cases in Canada – A Reference Book of Principles and Case Law,*[1] the law concerning the accounting of profits has been clarified by the Supreme Court of Canada in *Nova Chemicals Corp. v. Dow Chemical Co.*, 2022 SCC 43. While this ruling did not introduce the term non-infringing option ("NIO"),[2] the Supreme Court provided significant guidance in the application of this concept.

At the same time the authors have observed an increase in the frequency of claims by defendants to the purported existence of non-infringing alternatives ("NIAs"), both in the context of a quantification of lost profit damages and hypothetical royalty rate negotiations.[3]

Combined, these factors have motivated this publication which is intended to describe the economic and business principles of NIAs and NIOs when calculating monetary remedies but is intended to be no more than a reference guide on the related case law.

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[1] Authored by Andrew Harington, Alexander Stack and Dr. Dimitri Dimotropoulos, published by The Brattle Group, and available online at *Calculating Monetary Remedies in Intellectual Property Cases in Canada – A Reference Book of Principles and Case Law* (https://www.brattle.com/insights-events/publications/brattle-economists-author-book-on-calculating-monetary-remedies-in-intellectual-property-cases-in-canada/)

From feedback on the 2018 publication, we understand that most readers accessed the electronic version rather than the printed version and so this publication will only be made available in electronic form which will allow for more frequent updates as new rulings are released on this topic.

[2] As discussed further below, while the Supreme Court provided significant guidance on the application of the NIO principles, the term non-infringing option, as well as the principles set out therein, had been used by the Court in the context of accounting of profits prior to this ruling.

[3] This is possibly as a result of a reduction in the number of remedy rulings relating to small molecule pharmaceutical patent infringement, an industry where NIAs were rarely considered and the Court has not (to the best of the knowledge of the authors) awarded a reasonable royalty in recent history.

This uniqueness to the pharmaceutical industry is illustrated by the Courts statement that "In non-pharmaceutical cases, this is a very important question that usually turns on whether the product at issue would be considered a true substitute by the consumer. However, in pharmaceutical cases where generic products are bioequivalents of the original product, this aspect is not an issue." (*Apotex Inc. v. Eli Lilly and Company and Eli Lilly Canada Inc.*, 2018 FCA 217, at ¶54)

For ease of reference, this publication is divided into the following sections:

- Section 2 addresses the quantification of lost profit damages. This is intended to put the plaintiff back in the same economic position it would have been in absent the wrong. In this context, consideration of an **NIA** that the court concludes could and would have been adopted by the defendant in the but-for world is necessary.

- Section 3 addresses reasonable royalty damages. The royalty rate is intended to be the rate which the infringer would have had to pay if, instead of infringing the patent, the infringer had come to be licensed following negotiations between a willing licensor and a willing licensee. Depending on the method adopted to estimate the reasonable royalty rate, consideration of an **NIA** that the court concludes could and would have been available to the defendant at the time of the hypothetical negotiation informs the negotiation position of the parties to the negotiation.

- Section 4 addresses the accounting of profits. This is intended to quantify the profits of the infringer attributable to the invention. In this context, the relevant consideration is of an **NIO** that assists in isolating the profits causally attributable to the invention from the profits which arose at the same time the infringing product was used or sold, but which are not causally attributable to the invention.

- Section 5 describes methods used to undertake a market reconstruction, which may, depending on the facts of each case, be required under any of a lost profit damages analysis, a reasonable royalty analysis, or an accounting of profits.

2. LOST PROFIT DAMAGES

The quantification of lost profit damages is premised on identifying and quantifying the economic harm suffered by the plaintiff that is caused by the infringement to put the harmed party back in the same economic position it would have been in absent the wrong.

The determination of causation in fact (without consideration of remoteness) is addressed by the but-for test. Specifically, "but for" the defendant's infringement, would the plaintiff have suffered the loss? Reflecting the emphasis on causation in fact, the modern approach to damages is to compare what in fact occurred to the hypothetical situation where the defendant did not infringe, with the difference being the measure of the monetary reward.

While there may be various heads of damage sought,[4] where the plaintiff practices the invention, one head of damages is usually the reduction in profit from lost unit sales[5] as a result of wrongful competition with the defendant.[6]

The typical computation of lost profit damages is best considered as a three-step process:

1. The first step is to understand the unit sales in the real world of the plaintiff, defendant and, if applicable and available, other competitors in the relevant market;
2. The second step is to construct the but-for market (i.e., unit sales), referred to as a market reconstruction. This generally comprises two sub-steps:
    a) Determine what unit sales the defendant would have made utilizing an NIA, if applicable;
    b) Determine what unit sales the plaintiff lost; and
3. The third step is then to compute the plaintiff's lost profits on those lost unit sales determined under step 2(b) and, if applicable, reasonable royalties on the balance of the infringing sales of the defendant.

The consideration of NIAs in this publication relates to the <u>second step</u> in the above process.[7]

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4 A detailed discussion of this is beyond the scope of this publication. For further discussion, see *Calculating Monetary Remedies in Intellectual Property Cases in Canada – A Reference Book of Principles and Case Law*, at Section 4.

5 For ease of reference, this publication will refer to lost unit sales but the same principles apply to service businesses.

6 For patents, such lost unit sales could arise both prior to and following patent expiry.

7 It is beyond the scope of this publication, but the existence of NIAs may also be relevant to the third step including, for example, price suppression and convoyed sales.

2.1. Non-Infringing Alternatives

From an economic perspective, in creating the hypothetical but-for world in which the infringement did/does not occur, it is essential to consider non-infringing alternatives that the defendant truly had access to.[8]

The economic question that is addressed through the consideration of NIAs is whether, without infringing, the defendant could and would otherwise have participated in the market and competed, to a varying degree based on the facts of the case, with the plaintiff. The effect of this is to isolate the benefit received by the infringer from the use of the invention as compared to what the infringer would otherwise be able to do and, therefore, reliably identify the harm that was, in fact, suffered by the plaintiff from the defendant's infringement.

This is consistent with the "would have and could have" test used by the Courts as described in *Pfizer Canada Inc. v. Teva Canada Limited*, 2016 FCA 161:

> [50] Both "would have" and "could have" are key. Compensatory damages are to place plaintiffs in the position they would have been in had a wrong not been committed. Proof of that first requires demonstration that nothing made it impossible for them to be in that position—i.e., they *could* have been in that position. And proof that plaintiffs would have been in a particular position also requires demonstration that events would transpire in such a way as to put them in that position - i.e., they *would* have been in that position.
>
> [51] Both elements have to be present. "Could have" does not prove "would have"; "would have" does not prove "could have":
>
> - Evidence that a party would have done something does not prove that it could have done something. I might swear up and down that I would have run in a marathon in Toronto on April 1 aiming to complete it, but that says nothing about whether I could have completed it. Maybe I am not fit enough to complete it.

---

8 For valuators, it may be helpful to consider this as analogous to the principles underlying Investment Value (referred to in Canada as Value to Owner), defined in the International Valuation Glossary as "a Standard of Value considered to represent the value of an asset or business <u>to a particular owner or prospective owner</u> for individual investment or operational objectives." (emphasis added)

Specifically, the value is constrained by considering the specific availability or use of the asset bearing the invention in the hands of a particular owner, reflecting the constraints on that owner.

- Evidence that a party could have done something does not prove that it would have done something. A trainer might testify that I was fit enough to complete a marathon race in Toronto on April 1, but that says nothing about whether I would have completed it. Perhaps on April 1 I would have skipped the marathon and gone to a baseball game instead.

What constitutes an NIA, and the relevance of considering same in the "but-for" world, is discussed in *Apotex Inc. and Apotex Fermentation Inc. v. Merck & Co., Inc. and Merck Canada Inc.,* 2015 FCA 171:

> [48] … if damages for lost profits are calculated never having regard to an available non-infringing alternative, the patentee will sometimes be better off than it would have been in the absence of infringement. This is so for the following reason. Where a defendant can make and sell a non-infringing alternative, the patent does not confer a complete monopoly on the patent holder. Instead, the patent confers a share of market power upon the patentee. In this circumstance, where, instead of using a non-infringing alternative, a defendant infringes, it is a question of fact whether, "but for" the infringement, the defendant would not have competed with it. The defendant's lawful competition in the "but for" world may have deprived the patentee of some sales.
>
> [49] Put another way, in cases where, in the "but for" world, the infringer could and would have made and sold a non-infringing alternative, these sales may well reduce the patent owner's sales. Awarding the patentee full damages for lost profits in every case will, therefore, sometimes over-compensate the patentee.
>
> [50] Perfect compensation requires consideration of: (i) what, if any, non-infringing product the defendant or any other competitors could and would have sold "but for" the infringement; and, (ii) the extent lawful competition would have reduced the patentee's sales.
>
> …
>
> [73] When considering the effect of legitimate competition from a defendant marketing a non-infringing alternative, a court is required to consider at least the following questions of fact:
>
> > i) Is the alleged non-infringing alternative a true substitute and thus a real alternative?
> >
> > ii) Is the alleged non-infringing alternative a true alternative in the sense of being economically viable?
> >
> > iii) At the time of infringement, does the infringer have a sufficient supply of the non-infringing alternative to replace the non-infringing sales? Another way of framing this inquiry is could the infringer have sold the non-infringing alternative?

> iv) Would the infringer actually have sold the non-infringing alternative?
>
> [74] As a matter of principle, the burden lies on the defendant to establish the factual relevance of a non-infringing alternative on a balance of probabilities. Indeed, Apotex acknowledged in oral argument that it bears the persuasive burden, on a balance of probabilities, to prove that it would have used the non-infringing alternative. …

It is worth noting, for historical reference, that *Apotex Inc. and Apotex Fermentation Inc. v. Merck & Co., Inc. and Merck Canada Inc.,* 2015 FCA 171, at ¶61-68, clarified the law that existed from 1888 (*The United Horse Shoe and Nail Company, Limited v Stewart and Company* (1888), 5 RPC 260, 13 App Cas 401 (HL)) to 2013 on NIAs, as summarized in the Federal Court case in the same matter *Merck & Co., Inc. and Merck Canada Inc. v. Apotex Inc. and Apotex Fermentation Inc.*, 2013 FC 751, at ¶57-66.

2.2. The Application of NIAs in Different Fact Scenarios

The Federal Court of Appeal, in *Rovi Guides, Inc. v. Videotron Ltd.*, 2024 FCA 125, elaborated further:

> [129] I agree that the Federal Court erred in basing its provisional damages calculation on the amount that it would have cost Videotron to design around the Patents without first finding what these non-infringing alternatives were, whether Videotron could and would have adopted them, and whether consumers would have accepted them. …

In the context of step 2(a) above, considering the effect of an NIA on the sales that the defendant would have made in the but-for world, it is conceptually helpful to consider it as a two-step process:[9]

<u>Step i – Could have and would have</u>

> This step is a threshold question for the Court to consider the alternatives available to <u>the defendant</u> such that the defendant could have and would have entered the market with a non-infringing product in competition with the plaintiff. The result of this step is essentially binary – either the defendant would have introduced the NIA, or it would not have.

[9] The two steps may be thought of as inter-connected in that the <u>expected</u> market response may, depending on the facts of the case, affect the likelihood that the defendant would, in fact, enter the market with the NIA. Step ii herein refers to the <u>actual</u> subsequent market reaction to the NIA.

Step ii – Market response

The second step is only relevant if the Court finds, in the threshold step i, that the defendant could have and would have entered the market with a non-infringing product. This step ii considers the reaction of the consumer,[10] i.e., the market response to the NIA that the defendant makes available. Unlike the "could have and would have" in step i, which is binary, step ii could have a wide range of outcomes ranging from:

- At the one extreme - assuming that the price of the NIA is unchanged from the infringing product, the defendant's customers fully accept the NIA and are indifferent to it as compared to the infringing product. In this case the effect could reasonably be that the defendant would have achieved the same market penetration selling the NIA in the but for world as it achieved with the infringing product in the real world.

- At the other extreme - the defendant's NIA, while technically feasible, would not have been accepted by customers because, for example, the infringing feature that is removed and not available in the NIA was the driving factor in the customer's purchase decision. In this case the effect could reasonably be no different to the situation where the Court finds that there is no NIA.

- Any range of outcomes in between the above two extremes, such that some percentage of the defendant's customers that purchased the infringing product would have purchased the NIA while other customers would elect to purchase either the plaintiff's product or, if applicable, the product of some other company on the market with a non-infringing product. This could be on account of, for example, either the feature no longer being present in the defendant's NIA product or, if applicable, the higher price of the defendant's NIA product.

It is important to realize that, just because the Court is persuaded by step i and accepts the relevance of the NIA, it does not mean, from an economic perspective, that the customer's acceptance of that NIA automatically follows.

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[10] While the Court tends to use the term consumers, from a business and economic perspective, we will refer to "market", "customers", or "consumers" interchangeably. In our experience, it is the perception of that party which is selecting whether to purchase the product from the defendant or not that dictates whether a product is accepted. Whether this party is the ultimate consumer or not may vary depending on the nature of the industry. For example, if the defendant is a manufacturer that sells to retailers, it is possible that it is the retailer that makes this decision, notwithstanding that the retailer is not the end consumer.

While both these steps depend on the specific facts of the case, for purposes of this publication, we have grouped various permutations into four categories as set out below. Note that, for ease of reference for purposes of this table, we have used the term "invention" to refer to the infringed intellectual property at issue. From an economic perspective, the same principles could be applied to trade secrets.

<table>
<tr><td></td><td colspan="3">NIA Alternatives Provided by Defendant (Step i)</td></tr>
<tr><td></td><td>No NIA meets the "could have and would have" threshold</td><td>The NIA does not contain the same utility as the invention</td><td>The NIA is a perfect substitute in that it achieves the utility of the invention but through alternate means</td></tr>
<tr><td>Market Response (Step ii)</td><td colspan="3"></td></tr>
<tr><td>Utility of the invention driving factor in customer decision</td><td rowspan="3">[1] Defendant would not participate in the but-for market</td><td>[3] Market reconstruction considering the NIA but possible that defendant may not successfully participate in the but-for market</td><td></td></tr>
<tr><td>Utility of the invention is just one factor in customer decision and/or price</td><td colspan="2">[2] Market reconstruction considering the NIA</td></tr>
<tr><td>Utility of the invention not a factor in customer decision</td><td colspan="2">[4] Market may be unaffected from the real world</td></tr>
</table>

A fulsome description of what each of the above fact scenarios reflects is set out at the beginning of each section below.

[1] Defendant would not participate in the but-for market

If there is no NIA, or the Court finds that the purported NIA does not meet the "could have and would have" threshold, then the but-for world is one in which the defendant would not have participated in the market. Depending on the facts of the case and the existence of other market participants, one would either:

- assume that all sales of the defendant would have been made by the plaintiff. This typically occurs, for example in a small molecule pharmaceutical patent infringement case; or
- undertake an exercise to determine what portion of the defendant's sales would have gone to the plaintiff, as opposed to other non-infringing market participants, and represent lost unit

sales of the plaintiff on which lost profit damages are calculated. A reasonable royalty would then be applied on the remaining infringing sales.[11]

The second bullet point above is sometimes referred to as a market reconstruction, which is discussed in Section 5 below.

To illustrate, damages were computed in the following cases reflecting this fact scenario:

***AFD Petroleum Ltd. v. Frac Shack Inc. and Frac Shack International Inc.*, 2018 FCA 140:**

> [62] Moving on to the issue of non-infringing alternative, in Apotex Inc. v. Merck & Co., Inc., 2015 FCA 171, [2016] 2 F.C.R. 202 at paras. 38-50 (Lovastatin), this Court recognized that the presence of a non-infringing alternative will reduce the damages an infringer is liable to pay if the infringer establishes that it could and would have adopted the alternative and that the alternative is economically viable and a true substitute for the product infringed. Similarly, in Monsanto Canada Inc. v. Schmeiser, 2004 SCC 34, [2004] 1 S.C.R. 902 at paras. 100-104, the Supreme Court of Canada determined that the presence of a non-infringing alternative will reduce the amount of profits to be disgorged by an infringer.
>
> [63] Whether a suggested alternative meets the requirements for being non-infringing typically involves questions of fact or mixed fact and law from which a pure legal issue cannot be extricated, as this Court noted at paragraph 73 of Lovastatin. Such determinations are therefore generally reviewable only for palpable and overriding error.
>
> [64] On this issue, the Federal Court committed no such error as there was more than ample evidence before it to support the conclusion that manual hot refueling was not a true substitute for the Frac Shack apparatus. The evidence established that the apparatus was both designed and shown to be effective in reducing the risks associated with manual hot refueling and thus offered advantages over manual hot refueling. Moreover, there was no evidence to indicate that AFD clients who contracted for the use of its apparatus would have been equally willing to have allowed AFD to use a manual hot refueling method. AFD's arguments on this point therefore fail as the Federal Court did not commit a palpable and overriding error in concluding that manual hot refueling was not a true substitute for the Frac Shack apparatus.

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11 See *Jay-Lor International Inc. v. Penta Farm Systems Ltd.*, 2007 FC 358, at ¶123.

***Apotex Inc. v. Eli Lilly and Company and Eli Lilly Canada Inc.,* 2018 FCA 217:**

[72] The economic viability of the Lupin 2 process was the subject of much debate before the Federal Court and again before us. In my view, economic viability is not something that is assessed solely from the subjective perspective of an infringer such as Apotex. But obviously, the subjective perspective of the infringer may be relevant to the question of whether the infringer "would" have used the NIA.

[73] However, as I noted earlier, the court's goal is to assess the real value of the patented invention(s). Such value cannot be assessed on a purely subjective basis. Evidently, the court must be satisfied that the NIA invoked was objectively an economically viable substitute at the relevant time. To say otherwise would mean that the value of a patent could be artificially reduced by an infringer who behaves in an unorthodox manner, or whose adoption of a substitute is motivated by reasons other than economic ones.

[74] Such a consideration could not be relevant to the assessment of damages under subsection 55(1) of the Patent Act. If it were, a patent would have little value, and it would be an incentive to keep one's invention secret.

[75] In Grain Processing Corp. v. American Maize-Products Co., 185 F. 3d 1341 (Fed. Cir. 1999), a case on which Apotex relied heavily in Lovastatin and before us, the question of whether a substitute process was available was raised in respect of a process that increased the cost by only 2.3%. In the present matter, the increased costs were raised by at least 40%, if not more (see Exhibit RX-142, Appeal Book, vol. 36, tab 155 at p. 10742).

[76] As mentioned, at the reference phase, there was contradictory evidence before the Federal Court as to what Apotex could have "expected" in terms of profitability at various dates. The best scenarios were presented by Apotex's expert, Mr. Harington, in schedule 14 of his report (Exhibit RX-157, Appeal Book, vol. 41, tab 170 at pp. 12402-09; also summarized at p. 12085). For our purposes, the most relevant scenarios are scenarios 4 (June 4, 1998) and 5 (January 1, 1999) (at pp. 12405-06).

[77] In scenario 5, it is clear that Apotex would have expected losses on all of its cefaclor products, given that the price on entry at that time was 70%, and that it could not have broken even on any of its products. In scenario 4, Apotex would have expected to lose money on its 500 mg capsules and 375 mg suspensions, and pursuant to Mr. Harington's figures, it would barely have broken even on its 250 mg capsules and suspensions.

[78] I note, however, that, in this last scenario, the regulated price used by Mr. Harington was disputed. He used a price pegged at 75% of the original's price, whereas in May 1998, an amendment to the applicable regulations had been published in The Ontario Gazette setting the price of the first generic in the market at 60% and, later on, in November 1998, at 70%. Mr. Fahner and Apotex's experts

testified that in June 1998 Apotex could nevertheless have expected to be allowed 75%. Importantly, none of these calculations included any free goods. Although there was a dispute as to the amount of free goods that could be expected versus those actually introduced into the market because of Pharmascience's aggressive marketing, Mr. Fahner did not specify what quantity of free goods would be customary. Thus, even on the best scenario, it is unlikely that products made with Lupin 2 cefaclor would have been viewed as commercially viable per se. I understand that most if not all the experts agreed that, unless there were other valid economic reasons to market this product, a rational generic drug manufacturer entering a market where this drug had not been genericized – and where another three years remained before one of the patented processes in suit could be used – would not view the Lupin 2 cefaclor as commercially viable.

[79] In effect, when its reasons are read in the context of the evidentiary record, it is implicit that the Federal Court was not satisfied that Apotex's decision could have been based on the economic viability of its products made with Lupin 2 cefaclor. It just was not an attractive substitute. Instead, the Federal Court referred to the explanation given by Mr. Fahner to determine if, in the "but-for" world, there would be enough incentive for Apotex to enter the market using Lupin 2 cefaclor. As mentioned earlier, the Federal Court found that this was not so, and found – as a fact – that Apotex would not have entered the market on that basis.

[80] Finally, the only thoroughly objective evidence regarding the commercial viability of the Lupin 2 process stems from Lupin itself. As a manufacturer and international supplier of cefaclor, Lupin had tried the routes which Ms. Fouillade included in the 1998 Agreement at Step V-A and B, and concluded that they were not "practical and feasible" (Exhibit Satpute-2, Appeal Book, vol. 57, tab 254 at p. 17183). I note that this was so even when Lupin did not include the additional 10% loss in yield at Step III, on which Ms. Fouillade insisted by referring to the 372 Patent in the 1998 Agreement.

[81] In these circumstances, I am not satisfied that there was sufficient evidence for the Federal Court to conclude that Lupin 2 cefaclor was an objectively commercially viable substitute. It follows that the Federal Court would not have been justified in considering its effects in the context of an NIA defence.

***Darin Grenke, as personal representative of the Estate of Edward Grenke, and 284849 Alberta Ltd. v. DNOW Canada ULC, National Oilwell Varco Inc., and 769388 Alberta Ltd.,* 2018 FC 564, aff'd 2020 FCA 61:**

F. Non-Infringing Alternative

(1) ISSUE 18: Are the SAI stuffing boxes or other sealing systems non-infringing alternatives?

[175] This issue was not addressed by the Plaintiffs in writing, but dealt with orally.

[176] This issue turns on the assumption that the relevant market includes both electric and hydraulic systems. It is the Defendants' position that not only does the relevant market include both types of systems but that the SAI stuffing boxes are a non-infringing alternative. The evidence shows that hydraulic sealing systems did compete with the mechanical lip seal product in certain types of operating conditions but was not in the relevant market as a substitute.

[177] There is no question that the SAIs are non-infringing; the question is whether they are an alternative.

[178] The availability of a non-infringing alternative is relevant in terms of whether the Plaintiffs would have captured sales in the but-for world. In Merck FCA, the Federal Court of Appeal described the relevant considerations thus:

[73] When considering the effect of legitimate competition from a defendant marketing a non-infringing alternative, a court is required to consider at least the following questions of fact:

i) Is the alleged non-infringing alternative a true substitute and thus a real alternative?

ii) Is the alleged non-infringing alternative a true alternative in the sense of being economically viable?

iii) At the time of infringement, does the infringer have a sufficient supply of the non-infringing alternative to replace the non-infringing sales? Another way of framing this inquiry is <u>could</u> the infringer have sold the non-infringing alternative?

iv) <u>Would</u> the infringer actually have sold the non-infringing alternative?

[74] As a matter of principle, the burden lies on the defendant to establish the factual relevance of a non-infringing alternative on a balance of probabilities. Indeed, Apotex acknowledged in oral argument that it bears the persuasive burden, on a balance of probabilities, to prove that it would have used the non-infringing alternative. This is consistent with jurisprudence such as Rainbow Industrial Caterers Ltd. v. Canadian National Railway Co., [1991] 3 S.C.R. 3, 84 D.L.R. (4th) 291.

[Underlining in original]

[179] Therefore, the issue requires the Court to look at whether the SAIs could have and would have been a non-infringing alternative to the Defendants' Enviro stuffing box as of February 2004.

[180] As indicated earlier, the relevant market did not include hydraulic drives – the relevant market was for electric drives. Customers interested in electric drives would not have purchased a hydraulic drive as an alternative.

> [181] Consistent with the above, the evidence is that the SAI was sold from 2004-2010 but only 10 units were made by the Defendants for electric drives. This small amount is not sufficient to establish the SAIs for electric drive as a real alternative – the odd sale here and there is insufficient.
>
> The Defendants have produced no other substantial evidence that they could have had sufficient SAIs for electric drives nor is there evidence that they would have done so.

***Nuwave Industries Inc. v. Trennen Industries Ltd.* 2021 FC 250:**

> AND UPON FINDING that a non-infringing option that the infringer could have used affecting the profits calculation was not established, per the principles in *Apotext (sic) Inc v Merck & Co, Inc,* 2015 FCA 171 at para 73; in that the burden laid with the Respondent and the latter did not advance such an argument in the struck pleadings; and irrespectively, the method consisting of cutting with a torch is not a non-infringing alternative in that: it constitutes a different process that is not a viable alternative or true substitute to the patented device; and the method is considered unsafe where oil and gas fumes are present and it further involves significant excavation, which results in longer timelines and augmented costs;

[2] Market reconstruction considering the NIA

In this fact scenario, the Court has determined that an NIA meets the "could have and would have threshold". However, in this fact scenario, <u>either</u>:

- The NIA does not contain the same utility as the invention. We refer to this as a "similar product", "partial substitute" or "lesser product" to distinguish this NIA from a "perfect substitute". This could occur, for example, where the invention is removed from the product or is the product that was sold by the defendant prior to implementing the invention <u>and</u> the invention is one factor (but not the driving factor) in the customer decision making process <u>and/or</u> the inability for the defendant to use the invention would have caused the defendant to have sold the NIA at a different selling price than what it had charged in the real world;[12] or

- While the NIA is a perfect substitute for the infringing product in that it achieves the utility of the invention but through alternate means, the invention is a factor (either the driving factor or a

[12] This could occur, for example, where the manufacturing cost of the NIA is higher than the manufacturing cost of the infringing product.

factor but not the driving factor) in the customer decision making process and/or the inability for the defendant to use the invention would have caused the defendant to have sold the NIA at a different selling price to what it had charged in the real world.

In such a situation, notwithstanding that the defendant could and would have entered the market with a technically feasible NIA, the market response may not be immediately obvious. Where this happens a market reconstruction may be required, as discussed in Section 5. This would identify the extent to which the unit sales of the defendant may have been reduced as a result of the removal of the invention and, if applicable, identify the extent to which some of that reduction in sales would have accrued to the plaintiff.

[3] Market reconstruction considering the NIA but possible that defendant may not successfully participate in the but-for market

In this fact scenario, the Court has determined that an NIA existed that does not contain the same utility as the invention. As described in Scenario [2] above, this could occur, for example, where the invention is removed from the product or is the product that was sold by the defendant prior to implementing the invention. However, in this case, the utility of the invention is the driving factor in the customer purchase decision.

In such a situation, notwithstanding that the defendant could and would have entered the market with a technically feasible NIA, the market response in the but-for world could be effectively the same as if the Court found there to have been no NIA.

Note that, as with Scenario [1] above, in this scenario the Court may still be required to determine what portion of the defendant's sales would have gone to the plaintiff if other non-infringing market participants exist. Such a market reconstruction is discussed in more detail in Section 5 below.

To illustrate, damages were computed in the following case reflecting this fact scenario:

***Jay-Lor International Inc. and Jay-Lor Fabricating Inc. v. Penta Farm Systems Ltd. and Penta One Limited,* 2007 FC 358:**[13]

> [196] Thus, if the Defendants are able to prove that sales of the infringing vertical feed mixers were solely attributable to the improvements that were made to the JAY-LOR invention, their argument of apportionment could succeed. In this task, the onus is on the Defendants to prove that the demand for their product arose from circumstances other than the patented features.
>
> [197] In my view, the evidence presented by the Defendants falls far short of satisfying me that customers bought the infringing units due not to the appropriation of the JAY-LOR invention but to changes made by Penta. I agree that the changes introduced by Penta may have assisted some of the sales. However, this does not mean that the purchasers were indifferent to the design of the auger. There is little doubt that the auger is the most important part of a vertical feed mixer. Without an auger that functions to mix the ingredients introduced to the mixer, loading height and stainless steel components are irrelevant. I have no evidence from customers as to what drove their sales decisions. Given the importance of the auger, would the customers not have examined the auger in the Penta vertical feed mixer before considering the other features? I am not able to conclude, as a finding of fact, that the Penta sales were made on the basis of its changes to the JAY-LOR invention.

[4] Market may be unaffected from the real world

In this fact scenario, the Court has determined that an NIA meets the "could have and would have threshold" and this NIA may contain the same utility as the invention (a perfect substitute) or not (an imperfect substitute).

However, in this fact scenario, the utility of the invention is not a factor in the customer decision making process as to which product to purchase (and all other aspects of utility between the infringing product and the NIA are identical). In such a situation, where (i) the defendant could and would have entered the market with a technically feasible NIA, and (ii) the defendant's customers are indifferent to whether the defendants' products contain the invention, then the market response in the but-for world may be

[13] While this case was decided before the Merck NIA case-law, the "apportionment" being discussed is analogous to the economic NIA analysis, i.e., were customers buying goods because of the invention or for some other reason?

no different to that which occurred in the real world. In such a situation, the plaintiff would probably be unable to demonstrate that it suffered any lost unit sales.

To illustrate, damages were computed in the following cases reflecting this fact scenario:

***Bombardier Recreational Products Inc. v. Arctic Cat, Inc. and Arctic Cat Sales, Inc.,* 2020 FC 691:**

> (3) Lost sales of snowmobiles on account of the 264 Patent
>
> [136] AC contends, successfully in my view, that BRP fails to establish that there are lost sales due only to the pyramidal frame of the 264 Patent. That is because of the interplay between the patents which established the configuration of the REV for the rider to be sitting in a forward position, which have been ruled to be invalid, and the much less visible pyramidal frame, which merely complements the three Rider Forward Patents. There is not any evidence of even one case where it can be said that a snowmobile manufactured by AC was sold because it had the pyramidal brace assembly. It has not been shown by direct evidence that there is any lost sale caused by the infringement of that one patent. AC is right to point out that there is no evidence whatsoever of even one sale made by AC because it was practicing the 264 Patent (Exhibit D-155, AC Financial Read-Ins, p. 17/95). There is no evidence in the nature of market studies or surveys, or even that of one consumer who would have been driven to purchase a snowmobile in view of the pyramidal frame under the hood. Instead, BRP relies exclusively on its expert's "market share approach" as a substitute for direct evidence.
>
> [137] According to the approach chosen and privileged by BRP, in order to discharge its burden, BRP would have to show:
>
> > (a) demand for the invention (and not for the new configuration of snowmobiles resulting from its other three patents);
> >
> > (b) causation;
> >
> > (c) reasonable quantification of profits;
> >
> > (d) manufacturing and marketing capacity.
>
> The Court accepts that BRP would have had the manufacturing and marketing capacity required to accommodate the selling of some 2,500 new snowmobiles: the evidence on that front is solid (Mr. Guy for BRP) and it was not really challenged. The other three elements are however significantly problematic.
>
> [138] BRP attempted to convince that the pyramidal structure was a driver of demand for its products. However, the attempt was based mainly on evidence in relation to what the plaintiff called its invention. What is needed is that the 264 Patent be in itself the driver of demand for the BRP products. That evidence is not present.

[139] BRP relied exclusively on the evidence of its expert at trial. Unfortunately for BRP, the expert's evidence relates to consumers preferring the forward/aggressive rider position claimed under the patents-in-suit (P-131, Expert Report of Keith R. Ugone, paras 70 to 73). The evidence does not differentiate in order to focus on the 264 Patent. What is presented as evidence is that the new configuration, with the driver seated very much forward, was the true driver. There is no doubt that there exists an impressive list of industry publications which praised the REV. But the REV is not the 264 Patent. Dr. Ugone, at paragraphs 70 to 88 of his report (P-131) abundantly refers to the quality of the "ride" ("Soft/Comfortable Ride"), performance and handling, forward seating, stand up snowmobile style, the radical centralized mass, and the ergonomics. Indeed, the expert, in his report at paragraph 80, alludes to AC's success coming from its new chassis (the Twin Spar chassis) unveiled in its 2007 model year snowmobile line. But the new Twin Spar chassis of 2007 did not even include a pyramidal frame. The introduction of the pyramidal frame by AC came only five years later. BRP's expert was focussed (sic) on the patents-in-suit, generally, not the 264 Patent and its capacity to generate demand.

[140] An argument is made that marketing material "emphasized" the pyramidal frame. It is true that some marketing material mentions the frame: I do not accept that it is emphasized either in the BRP or in the AC material. In fact, when considered together with other technical features touted by the marketing material, the pyramidal frame is no more than other technical features such as improved suspension, drive system or braking technologies presented often together in brochures.

[141] BRP referred in its presentation to the annual reports produced by Arctic Cat for years 2011 and 2012 (BRP's Memorandum on Remand – Remedies, para 16). In fact, the two paragraphs from the message from the CEO quoted in the compendium both stress the new suspension, drive system and breaking technologies.

[142] The evidence in this case does not establish that the pyramidal structure was a driver of demand for products. There is no direct evidence of even one consumer having purchased a snowmobile having even considered the pyramidal frame. No studies have been produced tending to show that it would be a consideration, let alone a major consideration. The plaintiff was left to resort to material which refers to technical features in an attempt to suggest that the pyramidal frame is a driver of demand. As a matter of fact, it is rather the REV, with its new configuration that has generated the positive feedback observed in the industry. But there has not been the demonstration that the pyramidal structure can be responsible for the positive feedback. The only evidence offered b (sic) BRP's expert does not in my view help establish that the 264 Patent, by itself, had any impact on demand, let alone have the kind of impact that may drive demand.

> [143] BRP also has to show that, but for the sales by AC of infringing products, it would have made a certain number of additional sales; it is therefore entitled to the profits on those sales.
>
> [144] For what is a crucial proposition, that the 264 Patent caused the loss of more than 2,500 sales of snowmobiles, the plaintiff can only rely on the report of its expert, at paragraphs 89 and 90 (P-131). But the causal relationship that must be shown is between the 264 Patent and the lost sales, not the patents-in-suit (the three patents ruled to be invalid plus the 264 Patent) and the alleged lost sales. The only evidence supporting the contention is that "(t)he economic causal connection to lost profits is established by the fact that BRP manufactures and sells snowmobiles embodying the claimed teachings of the Patents-in-suit in the Canadian market, and these snowmobiles directly compete with Arctic Cat's Accused Products" (para 89). Dr. Ugone is speaking of the four patents; he never particularizes the impact of the 264 Patent. And it is that particularized relationship that must be proven in order to establish any kind of causation. …

Energizer Brands, LLC and Energizer Canada Inc. v. The Gillette Company, Duracell Canada, Inc., Duracell U.S. Operations, Inc. and Procter & Gamble Inc., **2023 FC 804:**

> [254] … I find that Mr. Davidson's expert evidence is based on unproven and unsupportable assumptions that Duracell would not have sold the stickered packages, but for the stickers, and had the packages not been stickered, the sales would have gone to Energizer. Stated a different way, there is no evidence that the sales of the At Issue Packages did anything other than take the place of non-stickered battery packages, or that any incremental sales of DURACELL batteries occurred because of the stickers. This is evident, in my view, based on Mr. Harington's sur-reply report which shows the number of battery packages (involving only the sizes of At Issue Packages) sold in the years leading up to the Sticker Campaign (when there were no stickered packages), as well as during and after the campaign (i.e. January 2012 to December 2019) detailing year over year changes, on a month by month, as well as half yearly bases.
>
> [255] Mr. Harington's report responds to Mr. Davidson's report. Mr. Harington asserts that, from an economic and accounting perspective, an accounting of profits is calculated by multiplying the incremental profit to Duracell multiplied by the incremental units sold by Duracell (involving Duracell's sales of each type of At Issue Batteries in At Issue Packages displaying the At Issue Stickers). Further, from an economic and accounting perspective, damages (that is, Energizer's lost profits on sales it otherwise would have made but for Duracell's sales of the At Issue Batteries in the At Issue Packages bearing the At Issue Stickers) are calculated by the incremental profit to Energizer per unit (for each type of the At Issue Batteries in the At Issue Packages bearing the At Issue Stickers) multiplied by the incremental units Energizer would have sold had Duracell not used the At Issue Stickers.

> [256] Mr. Harington contends that Mr. Davidson failed to determine or analyze the incremental units sold by Duracell and the incremental units that Energizer would have sold, and thus, Mr. Davidson failed to consider whether any of the profits or damages is linked causally to the challenged activities. In other words, Mr. Davidson failed to consider, or the extent to which, the sales volumes generated any incremental profits as a result of using the At Issue Stickers on the At Issue Packages by exceeding Duracell's historical sales volumes and trends.
>
> [257] Mr. Harington opines that there is no basis for concluding there were any incremental unit sales of Duracell's AA batteries or hearing aid batteries (sizes 10, 13 and 312) in the At Issue Packages with the At Issue Stickers during the At Issue Period.
>
> [258] Leaving aside that Mr. Davidson's reply report does not consider Duracell's HA battery sales, in my view Energizer treats the stickered packages as essentially a new product offering or as a new market entrant. The historical capture rate represents an effort to re-distribute profits on those units back to Energizer, or to calculate damages for assumed lost sales of those units. As Mr. Davidson stated in cross-examination, "I'm taking [market] share away from Duracell and moving it to Energizer, that's clear." Further, Mr. Davidson admitted that he was not instructed to engage in a causation analysis for profits but his understanding is that he was asked to quantify an accounting of profits in respect of the entirety or 100% of the at issue sales. He also essentially agreed with Duracell's counsel that had he been asked to do a causation analysis, he would not have found it reasonable to say that 100% of those profits are casually attributable to the labels.
>
> [259] All of Energizer's evidence is based on the assumption, without evidence such as a survey, that the only focus of the average, hurried consumer would be the At Issue Sticker and not for example, the dominant use of the house brand DURACELL.
>
> [260] Paraphrasing the Supreme Court of Canada, I find that Duracell's profits were precisely what they would have been had they sold their HA and AA batteries without the Energizer HA Sticker and the Energizer MAX AA Sticker respectively: Monsanto Canada Inc. v Schmeiser, 2004 SCC 34 (CanLII), [2004] 1 SCR 902 at paras 103-104. Energizer has failed to demonstrate causation regarding the presence of the stickers and profits Duracell earned on the sale of stickered battery packages. I am not persuaded that the latter represent increased sales above what Duracell would have sold in the absence of these stickers. "Without a clearly proven effect on the market, there can … be no apportionment": *Teledyne Industries Inc. v Lido Industrial Products Ltd.* (1982), 68 CPR (2d) 204 (FC), 1982 CarswellNat 16 at 214.

To further illustrate this point, the Federal Court in *Rovi Guides, Inc. v. Videotron Ltd.*, 2022 FC 874 found:

> [614] Ms. Paquet was adamant in cross-examination that Videotron's subscribers do not make choices around staying or leaving based on the kind of functionality

> at issue in this case. Mr. Lessard also confirmed Videotron customers do not make decisions based on these technical features.

However, the Court of Appeal in *Rovi Guides, Inc. v. Videotron Ltd.*, 2024 FCA 125, stated:

> [130] As noted, in Apotex 2018 at paragraph 54, this Court stated that the consideration of whether a proposed substitute is a true alternative "[i]n non-pharmaceutical cases … is a very important question that usually turns on whether the product at issue would be considered a true substitute by the consumer".
>
> [131] In the present case, the Federal Court failed to undertake the foregoing analysis and failed to ascertain what the design changes that Videotron posited it could have made were. It also failed to address whether any such changes could and would have been adopted by Videotron and whether they would have been accepted by its customers. The Federal Court erred in law in failing to consider these issues, which are essential components for a finding of a non-infringing alternative that would limit a defendant's damages exposure.

3. REASONABLE ROYALTY DAMAGES

Courts have typically awarded the plaintiff a reasonable royalty for the defendant's infringement (assuming the Court has not awarded an accounting of profits) in cases where the plaintiff did not suffer, or cannot prove it suffered, any losses as a result of the defendant's infringing use of the IP at issue, or where the plaintiff cannot prove that it would have made all of the sales made by the defendant.

A reasonable royalty rate is that which the infringer would have had to pay if, instead of infringing the patent, the infringer had come to be licensed under the patent. The test is what rate would result from negotiations between a willing licensor and a willing licensee.[14]

In addition to prior rates on licenses entered into by the plaintiff for the invention, the Courts have applied different methods to estimate the outcome of such a negotiation, including:

- The *AlliedSignal* Approach
- The Anticipated Profits Approach
- The Hypothetical Negotiation Framework
- Comparable Licenses

[14] *AlliedSignal Inc. v. du Pont Canada Inc.*, 1998 CanLII 7464 (FC) aff'd 1999 CanLII 7409 (FCA), at ¶199.

3.1. The *AlliedSignal* Approach

Under this approach, the royalty would be "approximately 25% to 33% of profit before tax"[15] with a consideration of 13 factors to affect the specific percentage in each case:[16]

(i) Transfer of technology;

(ii) Differences in the practice of the invention;

(iii) Non-exclusive licence;

(iv) Territorial limitations;

(v) Term of the license;

(vi) Competitive technology;

(vii) Competition between licensor and licensee;

(viii) Demand for the product;

(ix) Risk - The risk that the product would not sell…;

(x) Novelty of invention;

(xi) Compensation for research and development costs;

(xii) Displacement of business: A royalty rate will tend to be higher if it results in increased revenues to the licensee; and

(xiii) Capacity of the patentee to meet market demand.

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15 *AlliedSignal Inc. v. du Pont Canada Inc.*, 1998 CanLII 7464 (FC) aff'd 1999 CanLII 7409 (FCA), at ¶209. This is described in *Jay-Lor International Inc. v. Penta Farm Systems Ltd.*, 2007 FC 358, at ¶137 and ¶145 as "between 25% and 33.3% of the plaintiff's incremental profits before tax using differential cost accounting" (emphasis added). We assume, based on the actual application in AlliedSignal, that this was intending to refer to the defendant's incremental profits.

16 *AlliedSignal Inc. v. du Pont Canada Inc.*, 1998 CanLII 7464 (FC) aff'd 1999 CanLII 7409 (FCA), at ¶209.

While the *AlliedSignal* factors continue to be adopted in subsequent cases,[17] the approach to applying these factors to determine a royalty that is approximately 25% to 33% of profit before tax was addressed by the Court, in *Jay-Lor International Inc. v. Penta Farm Systems Ltd.*, 2007 FC 358:

> [145] … Dr. Friedlander was directed by counsel for the Plaintiffs to apply [the *AlliedSignal*] methodology. However, it is clear from his testimony that he would not normally use the AlliedSignal approach. His reasons for not doing so and for using an anticipated profits methodology are, in my view, persuasive. …
>
> [147] … There was no discussion in the trial of any other methodology or approach to calculating a reasonable royalty. Had Justice Heald been presented with another approach – such as the anticipated profits approach – he may well have accepted the logic of that approach. I do not accept that the *AlliedSignal* case stands for the proposition that the Court must apply the same approach to calculating royalties. Indeed, based on the expert testimony before me from the experts for both parties, I believe that the *AlliedSignal* approach of a calculation based on incremental profits before tax should be discarded. That is not to say that the approach might not be applicable in other situations; that will, of course, depend on the evidence in those cases. …"

3.2. The Anticipated Profits Approach

Under this approach,[18] the licensee (defendant) would "negotiate a reasonable royalty by estimating its anticipated profits arising from the sale of the patented invention and then paying a portion of those profits to" the licensor (plaintiff). "The key to the anticipated profits approach is an estimation of the anticipated economic benefit in the hands of the licensee."[19]

In determining what portion of the profits should be paid to the licensor in the form of the license, the Courts tend to apply the factors from the *AlliedSignal* Approach.[20]

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[17] See, for example:

- *Varco Canada Limited, Varco, L.P., Wildcat Services, L.P. and Wildcat Services Canada, ULC v. Pason Systems Corp. and Pason Systems Inc.,* 2013 FC 750 at ¶448-449.
- *Arctic Cat Inc. and Arctic Cat Sales, Inc. v. Bombardier Recreational Products Inc.,* 2016 FC 1047 at ¶424.
- *Adeia Guides Inc. v. Videotron Ltd.,* 2025 FC 1725 at ¶520.

[18] For more detail on this approach, see *Calculating Monetary Remedies in Intellectual Property Cases in Canada – A Reference Book of Principles and Case Law*, chapter 6.6, pages 325 – 329.

[19] Jay-Lor International Inc. v. Penta Farm Systems Ltd., 2007 FC 358, at ¶150.

[20] For further discussion on this topic, see Section 3.5.

The relevance of NIAs in this factor has been considered by the Courts as follows:

- *Arctic Cat Inc. and Arctic Cat Sales, Inc. v. Bombardier Recreational Products Inc.,* 2016 FC 1047 (obiter):[21]

> [358] [What] has been cruelly deficient in this case [was] how the Patent was practiced and thus what value is to be attributed to invention either by AC or BRP. The Court has not had the benefit of the value associated not only with the invention, but with the use that may have been made of the invention in view of the numerous possible applications, as disclosed in the specification.
>
> [377] … Indeed, the invention was not even marketed.
>
> [379] There is no evidence on this record of any consideration being given to changes in consumer demand, the marketing efforts or discounts offered. The record does not even show how the invention was used and to what effect.
>
> [382] The purpose in listing those difficulties is not so much to conduct some nit picking operation, but rather to show that the approach favored by the expert has its own warts as do the other methods, presented by the expert but not defended. It is very much unclear what those contribution margins per unit include, other than the invention. As already pointed out, that invention is itself very significantly limited and, in my view, it requires a significant leap of faith to accept any of the methodologies that are offered by the expert. As already pointed out, the burden is on AC to show in a persuasive manner that the proposed royalties will compensate only the infringement of the Patent and it would be inappropriate to seek to compensate other elements that are part of the profitability of the snowmobile.

- *Airbus Helicopters S.A.S. v. Bell Helicopter Textron Canada Limitée,* 2017 FC 170:

> [172] The "competitive technology" factor mentioned in AlliedSignal invites the Court to examine the existence of any NIA on the eve of first infringement, as it may have an important effect on the actual bargaining power of the parties in this hypothetical negotiation. This is logical because "when a patentee and potential licensee are negotiating, the maximum which would agree to pay is the amount by which the licensee expects to benefit from the use of the patent" (Norman Siebrasse, "A Remedial Benefit-Based Approach to the Innocent-User Problem in the Patenting of Higher Life Forms" (2004), 20 CIPR at 65-66 [Siebrasse 2004]).

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[21] This case is included to highlight the Court attempting to identify a benefit from the invention to the defendant, either in the form of a customer benefit or a reduction in cost as compared to the NIA, i.e., the same product without the invention.

> [173] The principle of NIA is also relevant in the analysis of the causation. If the reasonable royalty is calculated while ignoring a valid NIA, the patentee will sometimes be better off than it would have been in the absence of infringement, since the defendant's lawful competition, in the "but for" world, would or could have deprived the patentee of some sales. Awarding full damages will, therefore, over-compensate the patentee (Lovastatin FCA at paras 48-49). However, the patentee has the initial burden of establishing lost profits or damages 'but-for' the patent infringement and the infringer subsequently can prove there were no damages because they "could and would" have resorted to a NIA that is as good as the patented invention (Lovastatin FCA at para 50).
>
> …
>
> [175] The existence of valid NIAs came to light when "competitive technology" was recognized as one of the thirteen factors in the AlliedSignal case, and then again in more recent case law on quantification of damages in patent cases (Jay-Lor at paras 159 and 165)….

- *Adeia Guides Inc. v. Videotron Ltd.,* 2025 FC 1725:

> [520] Mr. Martinez identified the following data points and considerations that would have been found relevant to the hypothetical negotiations between the parties for license rights for the Asserted Patents:
>
> …
>
> - The existence of *potential* non-infringing alternatives to the Asserted Patents that could have been implemented by Videotron between January 2017 and August 2019 (*AlliedSignal* Factor 6);

3.3. The Hypothetical Negotiation Framework Approach

Under this approach,[22] first referenced in *Merck & Co., Inc. and Merck Canada Inc. v. Apotex Inc. and Apotex Fermentation Inc.,* 2013 FC 751, bookends for the hypothetical negotiation range are first quantified, representing:

- The highest royalty that would leave the defendants better off by taking a licence, referred to as the defendant's maximum willingness to pay, or MWP; and[23]

- The lowest royalty that would leave the plaintiffs better off by granting a licence, referred to as the plaintiff's minimum willingness to accept, or MWA.

Once the bookends for the hypothetical negotiation range are quantified, in determining the royalty within that range, the Courts tend to apply the factors from the *AlliedSignal* Approach.[24]

In the context of a hypothetical royalty rate negotiation, the NIA is sometimes referred to as the Best Alternative to a Negotiated Agreement (BATNA) or as the next best alternative (NBA). Economically, these terms and concepts are interchangeable.

The application of this framework, including the consideration of NIAs was addressed in *Seedlings Life Science Ventures, LLC v. Pfizer Canada UCL*, 2020 FC 1 (in obiter), aff'd 2021 FCA 154:[25]

> [218] To estimate that reasonable royalty, we assume that instead of infringing, Pfizer would have sought a licence from Seedlings. We then estimate the value of that licence. Of course, such a licence was never in fact granted. Thus, to assess the value of that licence, we need to engage in an exercise of hypothetical

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22 For more detail on this approach, see the "economic approach" description in *Calculating Monetary Remedies in Intellectual Property Cases in Canada – A Reference Book of Principles and Case Law*, chapter 6.6, pages 329 – 338.

23 Note that the importance of considering both parties positions was set out in *Rovi Guides, Inc. v. Videotron Ltd.*, 2024 FCA 125, at ¶133 "That said, in assessing the reasonable royalty rate, the Federal Court only considered the amount that Videotron would have been willing to pay and not the amount that Rovi would have accepted. As already noted, *AlliedSignal* provides that a hypothetical reasonable royalty rate must be set based on what rate would have been agreed to by both plaintiff and defendant had they been a willing licensor and willing licensee. The Federal Court accordingly should have considered both parties' positions (had they been acting as willing contracting parties) in setting the hypothetical reasonable royalty rate."

24 For further discussion on this topic, see Section 3.5.

25 It is worth noting, on the facts of this case, that it was conceptually necessary to consider the MWA of the plaintiff as licensor to other licensees, as it did not practice the patent.

negotiation. We ask ourselves what terms would Seedlings and Pfizer have agreed to if they had decided to negotiate a licence. That methodology is well anchored in economics literature. It has often been employed by this Court: see for instance, Merck & Co, Inc v Apotex Inc, 2013 FC 751 at paragraphs 149–152, [2015] 1 FCR 405 [Merck], aff'd 2015 FCA 171, [2016] 2 FCR 202; Dow Chemical; Jay-Lor. Both parties' experts, Dr. Heeb for Seedlings and Dr. Meyer for Pfizer, have employed this method and agree on its general outline.

[219] Basically, the hypothetical negotiation exercise involves the determination of the licensor's minimum willingness to accept [MWA] and the licensee's maximum willingness to pay [MWP]. These represent the points at which the parties would no longer be willing to agree and would walk away from the negotiation. To identify the MWA and MWP, one needs to understand each party's next best alternative [NBA]. This can be illustrated by a hypothetical negotiation between a farmer and a food distributor for the sale of a certain product. The farmer's NBA would be the possibility of selling to another food distributor. Thus, if the farmer knows that another food distributor would pay $500 a tonne for the product, that would be the farmer's MWA. Likewise, the food distributor's NBA would be the possibility of buying the same product from another farmer. Thus, if another farmer is willing to sell the product for $1000 a tonne, that would be the food distributor's MWP. In that example, the parties would negotiate a price between $500 and $1000 a tonne. Thus, the alternative transactions that the parties may enter into to achieve their objectives constitute their NBAs and frame the negotiation.

[220] The hypothetical negotiation takes place at the time of first infringement. This is because the defendant would have needed a licence at that time to avoid infringing the plaintiff's patent. Therefore, the exercise must be informed by the then existing situation. Changes that took place later are not relevant, as the parties would not have been aware of them at the time of the hypothetical negotiation. Subsequent events may only be relevant insofar as it can be said that they would have been expected or anticipated by the parties at the time of negotiation.

…

[223] Both experts assess Pfizer's MWP on the basis that its NBA is to continue making and selling the EpiPen Legacy instead of the NGA EpiPen, or reverting to the Legacy EpiPen after the NGA EpiPen was found to infringe Seedlings's patent. It cannot be seriously disputed that, in 2010, or even in 2011, this would have been technically feasible.

[224] The experts disagree, however, as to the consequences of such a change. Pfizer's factual witnesses have forcefully argued that reverting to the EpiPen Legacy would not have had any impact whatsoever on its sales. On that basis, Dr. Meyer asserts that Pfizer would not have been willing to pay anything to Seedlings to buy a licence that would have allowed it to make and sell the NGA EpiPen. Dr.

Heeb, in contrast, assumes that Pfizer's sales would have been affected. He then estimates what that effect would have been and how much Pfizer would have been prepared to pay to avoid that situation.

[225] In my view, the factual premise of Dr. Meyer's opinion is untenable. I also reject Pfizer's criticism of Dr. Heeb's assumptions. Thus, I accept his calculation of Pfizer's MWP.

(a) The Effects of Reverting to the EpiPen Legacy

[226] What must be assessed at this stage is King Canada's perception, in 2010, of the effects of not migrating to the NGA EpiPen and keeping, or reverting to, the EpiPen Legacy. In that exercise, what took place afterwards is irrelevant. Thus, I must assess King Canada's perception of competitive threats at that time, not whether those threats subsequently materialized or disappeared.

[227] King Canada began selling the EpiPen in 2006. From that date until 2010, it had been able, through sustained marketing efforts, to stabilize and increase its market share and to grow the market itself. Nevertheless, it was conscious that it was then facing increased competitive threats, as new products were expected to come to the market in the near future.

[228] In this context, it is clear that the NGA EpiPen's needle cover was a competitive advantage. Mr. Handel, who was King's vice-president at the time, candidly admitted this (October 31, 2019, pp. 128, 133). Moreover, King Canada's marketing plans for the transition from the EpiPen Legacy to the NGA EpiPen emphasized the fact that the latter would be the only auto-injector with needle protection (Exhibit P49, Tab 6)

[229] Ms. Armstrong, who was King Canada's director of marketing, recognized in cross-examination that, at that time, King Canada considered the Intelliject auto-injector to be a significant competitive threat (October 31, 2019, pp. 221–222, 226–227). That device offered sharps protection, in addition to being smaller. King Canada also expected other competitors to enter the market within a short time-frame (*ibid*, 228–231).

[230] This is summarized in the following exchange (p. 233):

> MR. VAN BARR: Thank you.
>
> It's fair to say, Ms. Armstrong, that the business plans we have been looking at certainly note a concern with competition; is that fair?
>
> MS. ARMSTRONG: It is.
>
> MR. VAN BARR: And your business plans specifically note certain advantages with the NGA.
>
> MS. ARMSTRONG: Yes.

> MR. VAN BARR: One of those advantages being the only auto-injector with automatic sharps protection, right?
>
> MS. ARMSTRONG: Right.

[231] Mr. Handel also testified that Meridian invested $38 million in the design of the NGA EpiPen (October 31, 2019, p. 135). It is entirely implausible that Meridian would invest such a large amount of money without expecting any return. While the transition from the EpiPen Legacy to the NGA EpiPen was expected to be revenue-neutral, that simply meant that the manufacturing cost and the sale price would remain the same. Thus, even though King did not expect to make a larger profit per unit sold, it must have believed that the transition to the NGA EpiPen was necessary to maintain a competitive advantage and, ultimately, its market share.

[232] Both parties put forward the evidence of allergists – Dr. Greenwald called by Pfizer and Dr. Upton called by Seedlings – to show how prescribing habits would have been affected if King Canada or Pfizer had to revert to the EpiPen Legacy. While they do not fully agree on the relative merits of each auto-injector, their evidence shows that prescribing allergists pay attention to the various features of each device. Thus, some allergists may not give much importance to sharps protection, but others will. It follows that it is not possible to say that all allergists will consider the EpiPen Legacy and the NGA EpiPen as being fully equivalent. This evidence is consistent with the proposition that reverting to the EpiPen Legacy would have had some detrimental effect on sales.

…

[234] Thus, if King Canada had not been able to sell a device with needle protection in 2010, it is reasonable to assume that it would have felt more vulnerable to competition. It would have been prepared to pay an amount that is more than de minimis to avoid being placed in that situation.

[235] It should be emphasized that, in order to come to that conclusion, I need not rely on subsequent Pfizer Canada business plans, even though I admitted them into evidence as business records.

(b) Calculating Pfizer's MWP

[236] Hence, Pfizer's MWP is the difference between the profits it expected to make by selling the NGA EpiPen and those it would have expected had it been required to sell the EpiPen Legacy instead. In 2011, Pfizer made forecasts of its profits for the NGA EpiPen for the following years. However, it never made any forecasts of the profits it would make with the EpiPen Legacy.

[237] For this reason, Dr. Heeb had to make a hypothetical calculation of Pfizer's expected profits with the EpiPen Legacy. Of course, this is a hypothetical exercise and there is no way of knowing what Pfizer's executives would have really thought

at the time. Dr. Heeb's hypothesis is that, contrary to Pfizer's assumption of a 3% growth of its NGA EpiPen sales every year, Pfizer's sales of the EpiPen Legacy would have remained flat, that is, they would not have shown a year-over-year growth.

[238] Pfizer criticized Dr. Heeb's assumption for being arbitrary. Moreover, it questioned Dr. Heeb's choice of a particular forecast, as the document from which it comes contained other scenarios, some more positive and others more negative. Yet, there is an inescapable arbitrary component in making hypothetical calculations of this nature. All the qualitative evidence suggests that the NGA EpiPen has a competitive advantage over the EpiPen Legacy, but there appears to be no precise manner of quantifying what Pfizer would have lost had it been forced to sell the latter. In those circumstances, Dr. Heeb's hypothesis of flat sales instead of a steady growth appears reasonable. No one has suggested a more reasonable alternative, apart from reiterating Pfizer's argument that reverting to the EpiPen Legacy would have had no impact whatsoever on its sales.

…

[240] Pfizer did not suggest that the other aspects of Dr. Heeb's calculation of its MWP were wrong. Hence, having found no fault with his methodology, I accept his result.

(2) Seedlings's Minimum Willingness to Accept

[241] The experts also disagree with respect to Seedlings's MWA. Dr. Heeb concludes that Seedlings's MWA is the value of the [REDACTED] licence. In other words, he assumes that Seedlings would have walked away from the negotiations if it had been offered less attractive terms than those it obtained from [REDACTED]. Dr. Meyer, in contrast, argues that Seedlings's MWA is de minimis. The basic reason for her conclusion, stated at paragraph 53 of her report, is that Seedlings would not have foregone anything by entering in a licencing agreement with Pfizer.

[242] <u>The proper approach, in my view, is to identify clearly Seedlings's NBA</u>. In other words, we should try to understand at what point Seedlings would have rationally walked away from the negotiations. Dr. Heeb puts it as follows at paragraph 39 of his report:

> Similarly, negotiators for Seedlings must take into account their expectations regarding the profits that Seedlings would make if it were to license the technology to Pfizer, compared with its profits if it did not.

[243] Contrary to Dr. Heeb, I do not find that the terms of the [REDACTED] licence constitute a threshold below which Seedlings would not have accepted to contract. Under the hypothetical bargaining scenario, Seedlings does not have to

choose between licensing to Pfizer and licensing to another firm on terms similar to those of the [REDACTED] licence. (In any event, it is far from clear that, in 2010, Seedlings had any realistic expectation of selling a licence to anyone.) Moreover, it is unclear that Seedlings's hypothetical license to Pfizer would have had to be exclusive. Thus, by negotiating with Pfizer, Seedlings was not foregoing the opportunity of selling a licence to someone else on terms similar to those of the [REDACTED] licence; that is not its NBA.

[244] <u>Rather, Seedlings's NBA, if it has any, is the incremental profits it would have made by not selling a licence to Pfizer. Intuitively, one could say that there are no profits to be made by not licensing a patent. Nevertheless, Dr. Heeb points out, correctly in my view, that there is a potential chain of events that would result in some value accruing to Seedlings of not licensing its patent to Pfizer</u>. In broad strokes, this chain can be described as follows:

- Seedlings walks away from the negotiation, forcing Pfizer to revert to the EpiPen Legacy.
- By reverting to the EpiPen Legacy, Pfizer becomes more vulnerable to competition.
- [REDACTED] enters the market and captures a greater share of the market than it would have been able to capture had Seedlings enabled Pfizer, through a licence, to market the NGA EpiPen.
- [REDACTED] then pays a greater royalty to [REDACTED].
- The value of shares increases.
- The value of Seedlings's [REDACTED] increases.

[245] Thus, Seedlings would rationally walk away from the negotiation if Pfizer offered a royalty that is less than the increase in the value of Seedlings's share in [REDACTED] resulting from Pfizer being forced to revert to the EpiPen Legacy. Dr. Heeb, however, does not attempt to quantify that increase in value. Indeed, there is considerable uncertainty with respect to several links of this chain of events. The hypothetical negotiation takes place in 2010 and it was not certain, at that time, that [REDACTED] would successfully enter the market. The terms of the [REDACTED] are not in evidence before me, other than a reference to [REDACTED]. I do not know the scope of the royalty payable by [REDACTED]. With respect to the increase in the value of [REDACTED] that would result from increased royalty revenue, this would be an expectation anchored in common sense, although anyone would also expect the value of a relatively small firm to be subject to important variations. Lastly, it is unclear that Seedlings would have been able to realize the increased value of its [REDACTED]. [REDACTED]. [REDACTED].

[246] Thus, while I agree that, in theory, Seedlings could reap some benefit by not selling a licence to Pfizer, in my view, this benefit was too distant and hypothetical to induce Seedlings to walk away from the negotiation. There was no rational

> reason for leaving any money on the table, irrespective of Seedling's opinion of what a licence was worth. In the end, as Seedlings had no real NBA, I agree with Dr. Meyer that Seedlings's MWA is de minimis.
>
> (emphasis added)

Note that this is in obiter. Further, in this case, while Seedlings did not practice the invention, had it done so, the principles described above as to the quantification of Seedlings's MWA are economically equivalent to those that would have been applied in the quantification of lost profit damages, described in Section 2 provided that the events that subsequently occurred were reasonably foreseeable at the time of the hypothetical negotiation. In such a situation, the plaintiffs lost profit damages also represent its MWA under the hypothetical negotiation framework approach.

Though in the context of a motion to exclude evidence rather than a remedy quantification, in *Bauer Hockey Ltd. v. Sport Maska Inc., d.b.a. CCM Hockey*, 2020 FC 212, the Court stated:

> [6] CCM makes this motion in the context where Bauer has consistently said that its claim to damages or a "reasonable compensation," under section 55 of the Patent Act, RSC 1985, c P-4, would be limited to a reasonable royalty and would not include lost profits. During the discovery phase, Bauer refused to answer questions about its profits.
>
> [7] In this context, Dr. Berkman was retained by Bauer to provide evidence as to reasonable royalty. In his main report, Dr. Berkman addressed the use of "benchmarks," such as transactions involving the patents at issue, assessments of their value or comparable transactions. He concluded that no comparable licences could assist in the assessment of a reasonable royalty. Instead, he relied on hypothetical negotiation, a well-known methodology for that purpose. To establish Bauer's minimal willingness to accept [MWA], a fundamental component of that methodology, Dr. Berkman relied on the profits that Bauer would forego by losing a certain proportion of its sales to CCM, as a result of the granting of a hypothetical licence.
>
> [8] CCM objects to the parts of Dr. Berkman's report that offer opinions based on Bauer's lost profits. It argues that Bauer is trying to introduce evidence of its profits despite having refused to answer questions on this subject, contrary to rule 248.
>
> …
>
> [10] … I do not interpret Bauer's undertaking not to claim any lost profits as excluding any consideration of lost profits in establishing a reasonable royalty. Damages for lost profits and reasonable royalty are generally considered as two separate manners of assessing damages for patent infringement. Foregoing the former does not exclude the latter. A potential licensor's expectation of losing

> profit is a relevant consideration in assessing its MWA. In this regard, CCM insists on the insufficiency of the "high-level" evidence of lost profits used by Dr. Berkman. That, however, goes to the probative value of Dr. Berkman's opinion, an issue that I will address when rendering judgment on the merits. It does not justify excluding parts of Dr. Berkman's reports pursuant to rule 248.

In *7299362 Canada Inc. C.O.B. as Alexa Translations v. Amazon.com, Inc., Amazon Technologies Inc., AMZN Mobile LLC, Amazon.com Services LLC, and Amazon.com.ca, Inc.*, 2025 FC 1674 the Court found, in the context of a motion to exclude expert evidence relating to whether the application of the hypothetical negotiation framework is an arguable remedy in a trademark context, that:

> [14] ... Although Alexa Translations initially claimed damages or an accounting of profits, it has elected damages. It relies on Mr. Harington's expert opinion that he is not able to quantify reliably the profits earned by Amazon, nor the sales lost by Alexa Translations, as a result of the alleged infringing activities. Mr. Harington further opines about the type of arrangement the parties most likely could have concluded to avoid infringement, such as a negotiated acquisition of the Plaintiff's trademarks by Amazon, whether in the context of a purchase or an exclusive licence. According to the Harington Report, either contemplated scenario would involve rebranding by Alexa Translations. Mr. Harington's opinions about the cost of rebranding are based largely on the Kincaid Report.
>
> [15] The parties are unaware of any Canadian trademark case that has decided the availability of a reasonable royalty to calculate damages. In my view, that alone does not preclude the Plaintiff from pursuing a novel damages remedy, if it is successful in establishing Amazon's liability for one or more of the asserted causes of action. I add that whether Alexa Translations can succeed on this novel trademark remedy is not in issue on this motion …
>
> …
>
> [25] In addition, the Harington Report opines on the two conceptual elements of the reasonable royalty analysis that Justice Snider adopts (at para 155), namely, "(a) a one-time negotiation on the eve of the first infringement; and (b) the use of a framework taking into account the hypothetical licensee's maximum willingness to pay (MWP) and hypothetical licensor's willingness to accept (MWA) methodology…" …
>
> …
>
> [31] I make one final observation on Motion 1, although it involves case law on which Amazon relies in Motion 2. There, Amazon's book of authorities contains a UK decision of the High Court of Justice, Chancery Division, 32RED v WHG Limited, 2013 EWHC 815. The decision involves an assessment of damages following a finding of trademark infringement and discusses the "user principle" (i.e. a person who has used another person's property wrongfully may be liable to pay a

> reasonable sum for such usage, such as damages) that underlies the consideration of a hypothetical bargain. Although there are some distinguishing points about this case, the court observes (at para 87) that "any impact that the possibility of re-branding would have had on the hypothetical negotiation has to be taken into account."
>
> …
>
> [36] I add that I do not intend that these reasons provide any substantive assessment of the suitability of the Plaintiff's proposed royalty framework for assessing damages in the context of this trademark dispute. That determination will be left for trial, if liability has been shown.

3.4. Comparable Licenses

Under this approach, the Court reviews other licenses between arms-length parties for technology considered comparable to the technology at issue.[26] While it is generally self-evident that such a scenario is unlikely to require consideration of NIAs, the Court may still be called on to consider if one exists.

Western Oilfield Equipment Rentals Ltd. v. M-I LLC, **2019 FC 1606:**

> [260] I disagree with Western. It did not have available a true non-infringing alternative to the VSS. A non-infringing alternative is one that is a true substitute for the apparatus in question, is economically viable, is available in sufficient quantities, and would actually have been sold by the infringer (Apotex Inc v Merck & Co, 2015 FCA 171 at paras 73-74).
>
> [261] Western claims it had two non-infringing alternatives to the VSS – a compressor that creates a pressure differential across a screen and discharges drilling fluid into a mud tank, and a mini-shaker situated at the end of a shaker to dry wet cuttings.
>
> [262] With respect to the compressor, Mr Stanton testified that it had been tried, but there was no actual product available on the market that would be suitable for this purpose, and none had been put into use either by Western, FPM, or FPM USA. As for the mini-shakers, these would essentially operate like drying shakers that remove some drilling fluid but the fluid requires further processing to remove fine particles. This equipment, according to Mr Stanton, is substantially more

[26] A detailed discussion of this is beyond the scope of this publication. For further discussion, see *Calculating Monetary Remedies in Intellectual Property Cases in Canada – A Reference Book of Principles and Case Law*, at Section 6.5.

expensive than the VSS; Western does not manufacture or offer its customers mini-shakers.

[263] The evidence does not show that Western had a non-infringing alternative to the VSS. Mr Palmer's opinion confirmed this, as did Mr Tate.

…

[268] M-I's expert, Mr Michael Tate, found that the most comparable license was between M-I and FourK Energy Services for the very invention in issue here at the relevant time, with a royalty rate of [REDACTED]. The agreement was entered into on September 1, 2014.

3.5. Consideration of NIAs under each method

The existence of NIAs is considered under each of these methods as summarized below:

- **The *AlliedSignal* Approach**
  - The impact of an NIA on the amount that the licensee/defendant would be willing to pay is considered through a directional assessment of the effect of certain *AlliedSignal* factors, including:
    - Factor #6, Competitive technology: The availability of competing technologies;
    - Factor #10, Novelty of invention; and
    - Factor #12, Displacement of business.
  - The amount that the licensor/plaintiff would be willing to accept if they practiced the invention and the licensee/defendant had an available NIA, is addressed through a directional assessment of the effect of certain *AlliedSignal* factors, including:
    - Factor #7, Competition between licensor and licensee; and
    - Factor #13, Capacity of the patentee to meet market demand.
- **The Anticipated Profit Approach**
  - Assuming the profit of the licensee/defendant has been calculated as the incremental profit over and above what the defendant would have earned using the NIA then the effect of the NIA is captured in the defendant's anticipated profit then no further

consideration is required. Giving further consideration to those factors, for example *AlliedSignal* factors #6, #10 and #12, that are already incorporated into the incremental profit in assessing the ultimate sharing ratio may result in double counting the effect of the NIA, and lead to an understatement of the royalty rate conclusion.

- Conversely, the amount that the licensor/plaintiff would be willing to accept if they practiced the invention and the licensee/defendant had an available NIA, is not quantitatively considered so, as with the *AlliedSignal* approach, is addressed through a directional assessment of the effect of certain *AlliedSignal* factors, including:
    - Factor #7, Competition between licensor and licensee; and
    - Factor #13, Capacity of the patentee to meet market demand.

- **<u>The Hypothetical Negotiation Framework Approach</u>**
    - A rigorous analysis of the defendant's MWP should quantitatively incorporate the effect of the NIA. Accordingly, giving further consideration to any factors, for example *AlliedSignal* factors #6, #10 and #12, that are already incorporated into the MWP in assessing the ultimate sharing ratio may result in double counting the effect of the NIA and lead to an understatement of the royalty rate conclusion.
    - Similarly, if the plaintiff practices the invention, a rigorous analysis of the plaintiff's MWA should quantitatively incorporate the effect of the NIA. Accordingly, giving further consideration to any factors, for example *AlliedSignal* factors #7 and #13, that are already incorporated into the MWA in assessing the ultimate sharing ratio may result in double counting these factors and lead to a misstatement of the royalty rate conclusion.

It is worth noting that, where the plaintiff does not have an MWA (for example, the plaintiff does not practice the invention or operates in a different market), the application of the Hypothetical Negotiation framework approach is economically equivalent to the application of the anticipated profits approach.

- **<u>Comparable Licenses</u>**
    - This approach does not consider the existence of NIAs. Generally, the NIA is only relevant to the extent that it affects how comparable the licenses are.

4. ACCOUNTING OF PROFITS

The quantification of an accounting of profits is premised on identifying and quantifying the benefit received by an infringing defendant causally attributable to the invention.

In contrast with NIAs, quantifying the benefit causally attributable to the invention is not determined with reference to the but-for world or whether the infringer could and would have utilized the identified NIO.[27] Said differently, the NIO is not subject to the same threshold test of "could have and would have" that is required of an NIA.

This distinction is described in *Nova Chemicals Corporation v. The Dow Chemical Company, Dow Global Technologies Inc. and Dow Chemical Canada ULC,* 2020 FCA 141, aff'd 2022 SCC 43:

> [45] To be clear, "but for", hypothetical reasoning applies when courts award compensatory damages for patent infringement: see, *e.g., Apotex FCA* (2015) at paras. 43-45; *Pfizer Canada Inc. v. Teva Canada Ltd.*, 2016 FCA 161, 483 N.R. 275 at para. 50. There is no doubt that, in that context, "[b]oth 'would have' and 'could have' are key" to determine the proper amount of compensation: see, *e.g., Pfizer* at para. 50. But this is not the case in an accounting of profits. An accounting of profits is indifferent to the plaintiff's compensation. <u>What "would have" and "could have" happened does not matter—all that matters is what is actually in the infringer's pockets as a result of the infringement of the patent, properly construed and understood.</u> (emphasis added)

[27] For valuators, it may be helpful to consider this as analogous to the principles underlying Fair Market Value, defined in the International Valuation Glossary as "a Standard of Value considered to represent the price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, each acting at arms-length in an open and unrestricted market, when neither is under compulsion to buy or to sell and when both have reasonable knowledge of relevant facts."

Specifically, the value is <u>not</u> constrained by considering the specific availability or use of the asset to a particular owner, but rather to the market as a whole as reflected by hypothetical buyers and sellers of the asset utilizing this invention as compared to the equivalent asset but without the invention.

4.1. Non-Infringing Options

The Supreme Court, in *Nova Chemicals Corp v Dow Chemical Co*, 2022 SCC 43, stated that:

> [3] … A "non-infringing option" is any product that helps courts isolate the profits causally attributable to the invention from the profits which arose at the same time the infringing product was used or sold, but which are not causally attributable to the invention. …

The Supreme Court elaborated further on the reasoning behind the purpose of NIOs:

> [55] *Schmeiser*, *Rivett*, and *Janssens* reveal the utility of non-infringing options: the concept helps courts isolate profits causally attributable to the invention from profits causally attributable to non-inventive aspects of the infringing product. Since Mr. Schmeiser did not spray his canola with herbicide, none of his profits were causally attributable to Monsanto's invention. All of Mr. Schmeiser's profits were generated by the sale of canola seeds. Monsanto did not invent or hold a patent on canola seeds (*Schmeiser*, at paras. 16-17 and 21). Similarly, in *Rivett* and *Janssens*, a non-infringing option helped the court isolate the profits causally attributable to Monsanto's invention from the profits attributable to non-inventive features of the infringing product, e.g. the profits attributable to the extra yield caused by the herbicide-resistant gene versus the profits attributable to the *soybean seed* itself (Andrews and de Beer, at p. 625). Said differently, considering a non-infringing option ensured that the court did not erroneously extend Monsanto's patent by entitling it to profits generated by product features it did not invent. Demanding that infringers disgorge profit that was not causally attributable to the invention would undermine the patent bargain by granting the patentee a windfall and punishing the infringer.
>
> [56] Courts recognized the need to consider non-infringing options in this manner before *Schmeiser*. In *Lubrizol Corp. v. Imperial Oil Ltd.*, [1997] 2 F.C. 3 (C.A.), for example, Imperial Oil sold motor oil containing a patented dispersant additive. The Federal Court of Appeal concluded that the infringer might not need to disgorge all of its profits derived from the sale of the infringing product because some of the profits may be causally attributable to the motor oil itself, which the patentee did not invent:
>
>> It may be possible for Imperial to show that some part of the profits made on the infringing sales are not profits "arising from" the infringement in that they are not caused by but simply made on the occasion of such infringement. . . .
>>
>> . . . Form must not be allowed to triumph over substance. While motor oil containing the dispersant additive was properly claimed in the patent (it would seem likely that the dispersant is useless except as an additive to motor oil) and while that claim was properly found to

> have been infringed, the reality is that Lubrizol did not invent motor oil and that Imperial's motor oils contain other additives than the one here in issue. The terms of the judgment quoted by the Prothonotary in the above extract from his reasons make it plain that it is the presence of the additive ("carboxylic derivative compositions") claimed in the Meinhardt patent which caused Imperial's motor oils to infringe. Thus, it is possible that such oils have achieved their market share and attendant profits for reasons other than the presence of Lubrizol's patented additive. A finding that Imperial's motor oils infringed the Lubrizol patent does not necessarily amount to a finding that all the profits from the sales of such motor oils are profits arising from the infringement. That is an issue of fact to be decided on the reference.
>
> . . .
>
> . . . to allow Lubrizol to take profits which Imperial succeeds in showing were solely attributable to some non-infringing feature of its motor oil would be to judicially sanction Lubrizol's unjust enrichment at Imperial's expense. [Emphasis added; paras. 9-15.]

[57] The Federal Court of Appeal in *Imperial Oil* did not have the benefit of *Schmeiser*. However, its reasoning accords with that in *Schmeiser*. To isolate the profits causally attributable to the invention from the profits attributable to non-inventive features of the infringing product, the court would compare the infringer's profits from the infringing product with what they would have earned with a non-infringing option: motor oil without the patented additive."

At a very high level, the consideration of NIOs in an accounting of profits differs from the consideration of NIAs in damages and hypothetical royalty rate negotiations as summarized below:[28]

	Damages	Reasonable Royalty	Accounting of profits
Court's objective	Put the plaintiff back in the same economic position it would have been in but for the infringement	Determine royalty of the parties that the parties would agree on, reflecting real world alternatives available to the infringer at the time of negotiation	Quantify profits of the infringer causally attributable to the (infringed) invention
Causation measure	Plaintiff's damages caused by the infringement	N/A (depending on the method employed)	Defendant's profits attributable to the (infringed) invention
Appropriate conceptual measure to the infringer	**NIA**	**NIA**	**NIO**
Requires creation of the hypothetical "but-for" world	Yes	Yes (depending on the method employed)	No[29]
Considers infringer's "could have and would have"	Yes	Yes	No
Considers customers' acceptance of the non-infringing benchmark	Yes	Yes	Yes

[28] The existence of NIOs in the hands of other market participants is always relevant to the extent that it affects the profits actually and hypothetically available to the plaintiff and/or defendant.

[29] At risk of being pedantic, while a hypothetical world must be considered in order to determine the profits that the infringer would have made with the NIO, it is not the world that would have existed "but for" the infringement (which is the one contemplated by an NIA). To distinguish these, we will refer to the situation used to isolate the profits had the infringer used the NIO as a hypothetical world, but without reference to "but for".

4.2. The Application of NIOs in Different Fact Scenarios

The Supreme Court, in *Nova Chemicals Corp v Dow Chemical Co*, 2022 SCC 43, stated:

> [15] It is … appropriate to conceptualize an accounting of profits as a three-step test:
>
> > Step 1: Calculate the actual profits earned by selling the infringing product ...
> >
> > Step 2: Determine whether there is a non-infringing option that can help isolate the profits causally attributable to the invention from the portion of the infringer's profits not causally attributable to the invention …
> >
> > Step 3: If there is a non-infringing option, subtract the profits the infringer could have made had it used the non-infringing option from its actual profits, to determine the amount to be disgorged.

Step 2 (as defined by the court above) is similar to Step i discussed in section 2.2 which was the Court assessing whether the defendant could have and would have entered the market with a non-infringing product in competition with the plaintiff. Specifically, <u>the identification of an alternative available to the defendant</u> is similar. This is in line with the difference between what constitutes an NIO as compared to an NIA as discussed above in section 4.1.

Step 3 (as defined by the court above) above is similar to Step ii discussed in section 2.2 – both quantify the effect of the defendant using the NIA/NIO, including evaluating the market's response to that alternative.

While both of these steps depend on the specific facts of the case, each can be visually grouped into various categories as follows. Note that, as in section 2.2, for purposes of this table, we have used the term "invention" to refer to the infringed intellectual property at issue. From an economic perspective, the same principles could be applied to trade secrets.[30]

<table>
<tr><td></td><td colspan="3">Alternative NIO Scenarios</td></tr>
<tr><td></td><td>No NIO exists</td><td>The NIO does not contain the same utility as the invention</td><td>The NIO is a perfect substitute in that it achieves the utility of the invention but through alternate means</td></tr>
<tr><td>Market response</td><td colspan="3"></td></tr>
<tr><td>Utility of the invention driving factor in customer decision</td><td rowspan="3">[1] All the defendant's sales arose from the (infringed) invention</td><td>[3] Market reconstruction considering the NIO but possible that all of the defendant's sales arose from the (infringed) invention</td><td></td></tr>
<tr><td>Utility of the invention is just one factor in customer decision and/or price</td><td colspan="2">[2] Market reconstruction considering the NIO</td></tr>
<tr><td>Utility of the invention not a factor in customer decision</td><td colspan="2">[4] Market may be unaffected from the real world</td></tr>
</table>

A fulsome description of what each of the above fact scenarios reflects is set out at the beginning of each section below.

[1] All the defendant's sales arose from the (infringed) invention

If there is no NIO, then the hypothetical world is one in which the defendant would not have participated in the market. In this fact situation, all of the sales made, and profits earned by the defendant (as quantified in Step 1 of *Nova Chemicals Corp v Dow Chemical Co*, 2022 SCC 43, at ¶15) are caused by the infringement.

30 For a discussion of accounting of profits in a trade secret context, see *Lac Minerals Ltd. v. International Corona Resources Ltd.*, 1989 CanLII 34 (SCC), [1989] 2 SCR 574.

Unlike in the determination of lost profit damages as described in section 2.2 above, in the accounting of profits there is no need for the Court to then determine whether the defendant's sales would have been made by the plaintiff and, consequently, there is no need for a market reconstruction[31] exercise.

To illustrate, profits were computed in the following case reflecting this fact scenario:

***Varco Canada Limited, Varco, L.P., Wildcat Services, L.P. and Wildcat Services Canada, ULC v. Pason Systems Corp. and Pason Systems Inc.,* 2013 FC 750[32]:**

> [404] This case involves just two competing products. The Defendants admit that without these features of the Pason AutoDriller (which the Court has found are infringing), it would not have any such sales. The weight of the evidence is that each Pason sale is one that would, in all probability, have gone to the Plaintiffs. Any customer seeking the same directional drilling capability would have bought one or other of the parties' products. Therefore, there is no other market distractions (packaging, brand recognition, etc.) which make this relief difficult or unworkable.
>
> [405] There is no customer evidence that the choice of the Pason AutoDriller was driven by those features that distinguish Pason, its product and its service from that of the Plaintiffs. This is not a consumer product where functionality is not necessarily the controlling purchase factor. This is equipment which is either needed or not and if needed, there were only two real sources of supply.
>
> …
>
> [416] As Justice Zinn held in Rivett, the proper approach in this type of circumstance is the "differential profit approach" which requires the Court to compare the profits made by the infringer that are attributable to the invention and the profits that the infringer would have made if he had used the best non-infringing option.
>
> [417] This approach requires the Court to look at six (6) factors:
>
>> (1) Causal connection: there must be a causal connection between the profits made and the infringement;

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31 See Section 5.

32 While this case was decided before Dow SCC, and therefore does not follow the current law, the case is nonetheless informative to demonstrate the scenario where the Court found that all of the defendant's sales arose from the (infringed) invention.

> (2) Gross profits from infringement: this is based on calculating the gross revenues from infringement and deducting the incremental costs of earning that revenue;
>
> (3) Non-infringing option: whether such option exists;
>
> (4) Disgorgement: absent a non-infringing option, the gross profits as per (2) are paid to the patentee;
>
> (5) Gross profits from non-infringement: this factor is only relevant if there is a non-infringing option.
>
> (6) Disgorgement (net): this factor is only relevant where there is a difference between the gross profits of infringement and the gross profits of non-infringement.

[418] Applying these factors to the facts of this case:

> (1) There is a clear causal connection between the Defendants' infringement and its profits. The Court has found, and the Defendants largely admit (assuming that the Pason AutoDriller infringes), that but for the infringing portions of the Pason AutoDriller, there would have been no product and more importantly no profit. It was the infringement which gave Pason a product which it could sell – it was the sine qua non of Pason's profits from its AutoDriller.
>
> …
>
> (3) There is no non-infringing option. The Court has found that the Pason AutoDriller with either algorithm infringes. The changes to Algorithm 2 were immaterial in terms of distinguishing between the AutoDriller first offered and the AutoDriller using the second algorithm. Therefore, there is no non-infringing product either by Pason or anyone else.
>
> (4) Disgorgement: based on the above, the gross profits from infringement are to be paid over to the Plaintiffs.

…

[421] The proper place to consider non-infringing features is in the analysis of "causal connection" because the Supreme Court of Canada in *Monsanto* has stated that "the inventor is only entitled to that portion of the infringer's profit which is causally attributable to the invention" (*ibid* at para 101).

[422] The determination of this causal connection depends on the facts of each particular case. In the present case, there has been no evidence that anyone

> acquired the Pason AutoDriller due to the factors which Dovey says should reduce the amount of profit attributable to the invention. The weight of the evidence is that "but for" the infringing qualities of the Pason AutoDriller, Pason would have earned nothing.

[2] Market reconstruction considering the NIO

In this fact scenario, the Court has determined that an NIO exists. However, in this fact scenario, either:

- The NIO does not contain the same utility as the invention <u>and</u> the invention is one factor (but not the driving factor) in the customer decision making process <u>and/or</u> the NIO would have been sold at a different selling price to that charged by the defendant in the real world; or
- While the NIO is a perfect substitute for the infringing product in that it achieves the utility of the invention but through alternate means, the invention is a factor (either the driving factor or a factor but not the driving factor) in the customer decision making process <u>and/or</u> the inability for the defendant to use the invention would have caused the defendant to have sold the NIO at a different selling price to what it had charged in the real world.

In such a situation, the market response to the NIO may not be immediately obvious. Where this happens a market reconstruction may be required, as discussed in Section 5, to identify the extent to which the unit sales of the defendant may have been reduced as a result of the removal of the invention.

[3] Market reconstruction considering the NIO but possible that all of the defendant's sales arose from the (infringed) invention

In this fact scenario, the Court finds that there is an NIO but it does not contain the same utility as the invention. As previously described in section 2.2[2], we have used the terms "similar product", "partial substitute" or "lesser product" to distinguish this NIO from being a "perfect substitute" for the infringing product.

Further, in this fact scenario, the invention is considered essential in the customer decision making process such that, without the presence of the invention, the market response in the but-for world could be effectively the same as if the Court found there to have been no NIO.

The authors are not aware of any accounting of profits cases since *Dow v Nova*, 2020 FCA 141 that have reflected this fact scenario.

[4] Market may be unaffected from the real world

In this fact scenario, the Court has determined that an NIO exists that either may contain the same utility as the invention (a perfect substitute) or not (an imperfect substitute).

However, in this fact scenario, the invention is not a factor in the customer decision making process as to which product to purchase (and all other aspects of utility between the infringing product and the NIO are identical). In such a situation, given that the market is indifferent to whether that product contains the invention, the <u>revenues</u> that the infringer would have generated had it used the NIO would be the same as it generated in the real world. There is still a need to determine whether the <u>costs</u> for manufacturing and selling the NIO would have been the same, or higher, than the infringer incurred in the real world. The net effect of these two aspects would be the quantification of profits that the infringer could have made had it used the NIO, as specified in Step 3 of *Nova Chemicals Corp v Dow Chemical Co*, 2022 SCC 43, ¶15.

To illustrate, profits were computed in the following case reflecting this fact scenario:

***Charles Rivett, Lawrence Janssens, Ronald Janssens and Alan Kerkhof v. Monsanto Canada Inc. and Monsanto Company,* 2010 FCA 207:**

> There is no clear statement to this effect, but the discussion at ¶79 to 91 indicates that there was never any question as to whether customers distinguished between soybeans grown from Roundup Ready vs conventional seeds and would have purchased whatever volume was produced. Indeed, the chart at ¶82 provided by Monsanto acknowledged the same price per bushel for both. However, the chart at ¶82 and the statements at ¶83 indicate that differences would have existed with respect to yield and operating costs between the Roundup Ready bulk and conventional soybeans.

5. MARKET RECONSTRUCTION (FOR BOTH DAMAGES AND ACCOUNTING OF PROFITS)

Market reconstruction of some form is required in all situations where the plaintiff practices the invention and has suffered lost unit sales as a result of wrongful competition from the infringer.

As described in *Apotex Inc. and Apotex Fermentation Inc. v. Merck & Co., Inc. and Merck Canada Inc.,* 2015 FCA 171:

> [55] First, a patentee claiming damages is required to <u>reconstruct the market</u> to project economic results that did not occur. This is a hypothetical enterprise. To "prevent the hypothetical from lapsing into pure speculation" courts require sound economic proof of the nature of the market and the likely outcomes with infringement factored out of the economic picture. Within this framework, patentees are permitted to present <u>market reconstruction theories showing all of the ways in which they would have been better off in the "but for" world. A fair and accurate reconstruction of the "but for" world must also take into account relevant, alternative actions an infringer foreseeably could and would have undertaken had he not infringed</u>. (emphasis added)

In the simplest scenario, all sales made by the infringer would have, in the but-for world, been made by the successful plaintiff and the "reconstruction" merely recognizing that in the but-for world those unit sales are transferred to the plaintiff. This is typically the scenario that exists in small molecule pharmaceutical cases as a result of the existence of the Canadian compulsory substitution regime.[33] For purposes of this publication, while this is technically a market reconstruction, given its simplicity, no formal reconstruction is, in fact, undertaken.

In all other instances, the Court is required to determine what portion of the defendant's unit sales would have been made by the plaintiff in the hypothetical world. This occurs in two scenarios:

1. **<u>In either a lost profit damages quantification or an accounting of profits</u>** - Where the Court finds that the defendant has available to it an NIA (in the context of a lost profit damages quantification) or NIO (in the context of an accounting of profits quantification) but, in the

[33] In this case one assumes, put simply, that the habits of prescribing doctors were unaffected by the existence of a generic competitor and it was the act of compulsory substitution that occurred at the pharmacy level that would not have occurred in the but-for world.

hypothetical world, some of the customers that purchased the infringing product would not have purchased the defendant's NIA/NIO product. This could occur, for example, because the invention was a factor in the customers purchase decision, and/or because the defendant would have needed to charge a higher price for the NIA/NIO than occurred in the real world. There may also be other reasons why this could occur.

This would require a market reconstruction in a hypothetical world (referred to as the "but-for world" in a quantification of lost profits, but the term "but-for world" does not apply in an accounting of profits) comprising the plaintiff, the defendant in the market with the NIA or NIO, and, if applicable, any other market participants that existed in the real world. This is the scenario referred to in sections 2.2[2], 2.2[3], 4.3[2] and 4.3[3].

2. **<u>In a lost profit damages quantification (but not an accounting of profits)</u>** - Where the Court finds that the defendant would not have had an NIA but there are other non-infringing market participants such that only some of the infringing sales would have been made by the plaintiff. This is the scenario referred to in section 2.2[1].

While a full study of alternative methods of market reconstruction is beyond the scope of this publication and, in some cases requires expertise beyond that of the authors, depending on the facts of the case and the information available, this reconstruction is typically addressed through one or more of the following methods:

<u>A) Benchmark market share of the same product but in a comparable market</u>. This could occur in two instances:

i) <u>Same product – different time period</u> - Where the defendant either made sales of the NIA prior to, or following, the period of infringement, then the relative market shares in those periods between the defendant and plaintiff could be a reasonable benchmark for what would have occurred in the but-for world. See, for example:

***Group III International Ltd., Holiday Group Inc. and Wenger S.A. v. Travelway Group International Ltd.,* 2024 FC 1195:**

> [120] I take comfort from the fact that the analysis conducted by Mr. Harington in an attempt to isolate the value of the Infringing Marks relative to sales at Walmart lends support to both Dr. Kolsarici's conclusion that the impact of brand elements on sales of shopping goods is low compared to factors such as price, quality and product placement and to Ms. Mason's evidence that brand was on the lower spectrum of the decision-making process of Walmart customers.

[121] Mr. Harington's expert evidence brings an additional, financial perspective on the issue of causality and further demonstrates a relatively minor impact between the profits and the use of the Infringing Marks. The isolation analysis was made possible because Travelway seamlessly transitioned from the Infringing Marks to a non-infringing mark after FCA 2017. Given the switch to the SKROSS® brand with identical products (exactly the same as the products sold in association with the Infringing Marks but with Infringing Marks removed), Mr. Harington was in a unique position to isolate, to some degree, the profits causally attributable to the passing off, as he explains in direct:

> A. In this case we are in quite a unique position, where the exact or substantially identical position -- I think I heard earlier today it's identical product -- was sold with or without the impugned marks. So we have a situation that they're not sold at the same time. They're sold in different time periods, and there's a two-month gap between them. But we're in a unique position where I can look at, all other features the same other than the passage of time, and say what was the impact of the cessation of the use of the impugned marks.

[122] Wenger submits that Mr. Harington's theory does not isolate the value of the passing off or "distinguish the widget from the car." According to Wenger, it simply posits the profits that Mr. Harington supposes, outside his expertise and without evidence, Travelway could have made were it not passing off, and deducts them. Such an approach, it says, was categorically rejected by the Supreme Court of Canada in *Nova Chemicals Corp v Dow Chemical Co*, 2022 SCC 43 at paras 59-66 [*Nova SCC*]. I disagree with these arguments.

[123] As mentioned earlier, Mr. Harington is specialized in the field of assessing monetary compensation, particularly in the field of intellectual property. He was so qualified, without objection, at the hearing before me. … Mr. Harington's expertise extends to calculating profits made as a result of an infringement. The sole purpose of Mr. Harington looking at post-injunction sales of Travelways' products was to isolate the value of the intellectual property at issue and not, as alleged by Wenger, to determine what Travelway could have or would have done had it not infringed.

…

[125] Mr. Harington was able to identify products using the Infringing Marks that were otherwise identical and were sold immediately prior to the injunction being issued in FCA 2017 and then rebranded as SKROSS® without the Infringing Marks following that date. The products used in his analysis, which Mr. Harington refers to as "Unreplaced Sales" (i.e. the decrease in sales), comprised nearly [REDACTED] of the total sales of the Infringing Products of [REDACTED]. All of these sales were made to Walmart.

> [126] Mr. Harington calculated the percentage of "replaced sales" – sales of the Infringing Products that were replaced by sales of products without the Infringing Marks after the issuance of the injunction in FCA 2017. He then applied this percentage to the sales of the Infringing Products before the issuance of the injunction to arrive at the amount of revenues that, from his perspective, cannot be attributable to the use of the Infringing Marks. The methodology used by Mr. Harrington [sic] in conducting his analysis is explained in great detail at paragraphs 36 to 52 of the Harington Report.
>
> [127] Mr. Harington's analysis demonstrates that "at most" 26.4% of sales of the Infringing Products may have been causally attributable to the use of the Infringing Marks, given that this was the weighted average percentage of Unreplaced Sales for the exact same luggage style bearing the SKROSS marks after the decision in FCA 2017. However, given that other marks were used on each of the products in addition to the Infringing Marks (i.e. the STP Design and the words "Swiss Travel Products") and all the other factors identified by Ms. Mason and Dr. Kolsarici, Mr. Harington could not fully isolate the impact of the Infringing Marks themselves.
>
> [128] There was insufficient data for Mr. Harington to provide a reliable analysis of replaced sales for non-Walmart customers. As a result, Mr. Harington provided two alternative calculations for non-Walmart customers. In the high-scenario, he assumes that one hundred percent of sales to non-Walmart customers are attributable to the use of the Infringing Marks. In the low scenario, he assumes that the same percentage of Unreplaced Sales applicable to Walmart is applicable to non-Walmart customers.
>
> [129] I recognize that there was a certain degree of arbitrariness to the data used by Mr. Harington to capture the baseline sales of the SKROSS branded goods. However, I find the methodology he used to isolate the value of the infringement to be both appropriate and logical. Mr. Harington was not shaken on this aspect of his evidence and he remained steadfast in his position. Of note, Wenger did not adduce any rebuttal expert evidence to contradict Mr. Harington's analysis. For these reasons, I find Mr. Harington's evidence relating to the value of the infringement to be very persuasive.

Energizer Brands, LLC and Energizer Canada Inc. v. The Gillette Company, Duracell Canada, Inc., Duracell U.S. Operations, Inc. and Procter & Gamble Inc., 2023 FC 804:

> See extract in Section 2.2[4], above.

ii) <u>Same product – different geographic market</u> - Where the defendant and plaintiff competed in another market at the same time as the infringement but where the defendant's product in the market did not contain the invention. While this is theoretically possible, the authors are not aware of cases that have applied this method.

B) Benchmark market share of a comparable product. This could occur where the defendant and plaintiff compete in a different market that is considered a reasonable benchmark for the market containing the infringement such that the comparable market shares could be applied to estimate the but-for market. While this is theoretically possible, the authors are not aware of cases that have applied this method.

C) Surveys. This involves statistical surveys of customers to identify customer preferences for the invention. These could include either surveys undertaken in the course of litigation or undertaken in the real world by either the plaintiff or defendant to identify customer preferences. See, for example:

- *Bombardier Recreational Products Inc. v. Arctic Cat, Inc. and Arctic Cat Sales, Inc.*, 2020 FC 691, ¶136. (although relating to inventions found not infringed)

D) Multi-variate econometric model. This model requires complex econometric modelling to isolate causal connections between unit sales and the effect of individual features, including the invention, on customer purchase decisions. See, for example:

i) *Janssen Inc. and Daiichi Sankyo Company, Limited v Teva Canada Limited*, 2016 FC 593, discussed at ¶101 to 106, aff’d 2018 FCA 33

E) Customer by customer review. This is less of a model *per se* but is a form of market reconstruction in which the Court assess the motivations of the individual customers of the defendant to determine what each one would likely have done in the hypothetical world. This method can practically only be applied in situations where there are few customers. See, for example:

i) *AlliedSignal Inc. v. du Pont Canada Inc.*, 1998 CanLII 7464 (FC) aff'd 1999 CanLII 7409 (FCA), ¶59 - 100.
ii) *Beloit Canada Ltée/Ltd. and Beloit Corporation v. Valmet Oy*, (1994) 78 FTR 86, ¶50 - 65 and ¶79 - 81.

F) Proportional diversion. Once the reduction in the defendant’s sales has been computed, if not already considered in one of the above methods, then a proportional diversion method can be used to determine what portion of the reduction (all or some portion) of the defendant's unit sales would have gone to the plaintiff if the market includes another non-infringing competitor. For example, if the plaintiff made 100 units of sales in the real world and another third party made 50 units of sales in the real world, then any reduction in the sales made by the defendant would be assumed to go to the plaintiff/third party in the ratio of 100:50.