



**Nova Solar G.P. Inc. and  
AltaLink Management Ltd.**

**Nova Solar Power Plant and Transmission Connection**

**July 19, 2023**

**Alberta Utilities Commission**

Decision 27589-D01-2023

Nova Solar G.P. Inc. and

AltaLink Management Ltd.

Nova Solar Power Plant and Transmission Connection

Proceeding 27589

Applications 27589-A001 to 27589-A006

July 19, 2023

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1400, 600 Third Avenue S.W.

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Telephone: 310-4AUC (310-4282) in Alberta

1-833-511-4AUC (1-833-511-4282) outside Alberta

Email: [info@auc.ab.ca](mailto:info@auc.ab.ca)

Website: [www.auc.ab.ca](http://www.auc.ab.ca)

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## **1 Decision summary**

1. In this decision, the Alberta Utilities Commission considers applications from Nova Solar G.P. Inc. to construct and operate a 150-megawatt solar power plant designated as the Nova Solar Power Plant and the associated Nova 1005S Substation, and a 240-kilovolt transmission line designated as 927AL. The Commission also considers applications from AltaLink Management Ltd. to construct and operate a new telecommunications tower, designated as the Nova 1005R Radio Site, alter Transmission Line 927L and connect the power plant to the Alberta Interconnected Electric System.

2. For the reasons outlined in this decision, the Commission approves the Nova Solar Power Plant and the Nova 1005S Substation, and finds that such an approval is in the public interest, subject to the conditions outlined in this decision. However, the Commission denies the associated applications for Transmission Line 927AL, to alter Transmission Line 927L, and to connect the power plant.

## **2 Introduction**

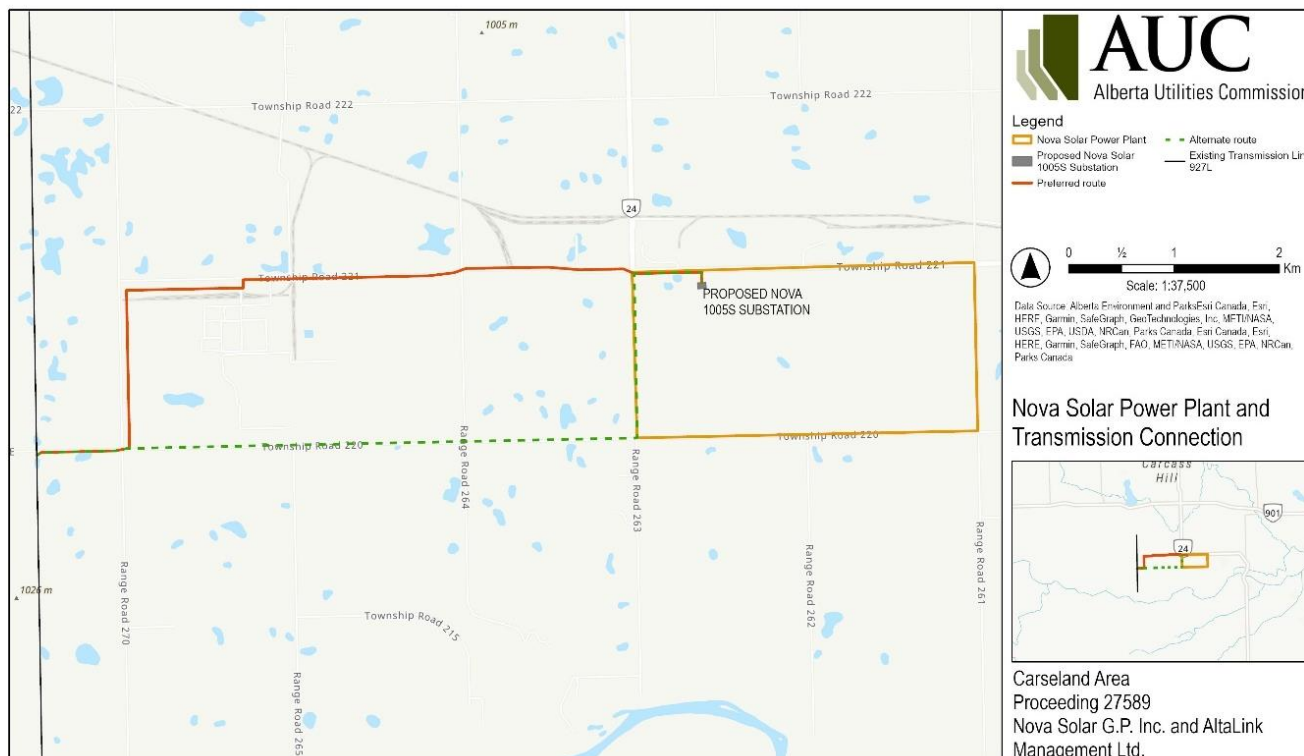
### **2.1 Nova Solar G.P. Inc.'s applications**

3. Nova Solar G.P. Inc., a wholly owned subsidiary of Renewable Energy Systems Canada Inc., applied to construct and operate the following facilities:

- A 150-megawatt (MW) power plant designated as the Nova Solar Power Plant and the associated Nova 1005S Substation (collectively, the power project).
- A 240-kilovolt (kV) transmission line designated as 927AL.

4. The power project and the transmission line would be located in Wheatland County, Alberta, as shown in Figure 1.

Figure 1. Nova Solar Power Plant and Transmission Connection



5. The power plant would consist of approximately 362,000 bifacial solar modules, each with a rated capacity of 540 watts, and 50 inverter/transformer units. The power plant and Nova 1005S Substation would be located on approximately 1,280 acres (518 hectares) of privately owned, cultivated land on sections 2 and 3, Township 22, Range 26, west of the Fourth Meridian, approximately two kilometres west of the hamlet of Carseland. The power plant is located within Wheatland County's Goldfinch Industrial Area Structure Plan (Goldfinch ASP), which is designated for industrial development.<sup>1</sup>

6. The Nova 1005S Substation would be located in the northwest quarter of Section 3, Township 22, Range 26, west of the Fourth Meridian and would consist of a 34.5/240-kV step-up transformer rated at 176-megavolt ampere (MVA), a 240-kV circuit breaker, and associated substation equipment. A 34.5-kV underground collection system would connect the inverter/transformer units to the project substation.

7. Nova Solar's transmission line application is a market participant choice application under Section 24.31 of the *Transmission Regulation*.<sup>2</sup> Nova Solar proposed two route options for the transmission line. For both options, the proposed Transmission Line 927AL would be

<sup>1</sup> Exhibit 27589-X0106, Appendix D - Siting Report, PDF page 12 and pages 63-106; Exhibit 27589-X0155, Nova Solar-OKL-2022DEC19-007 Attachment 1.

<sup>2</sup> *Electric Utilities Act, Transmission Regulation*, Alberta Regulation 86/2007, current as of December 1, 2021. In accordance with Section 24.31 of the *Transmission Regulation*, an electricity market participant may submit a proposal to the Independent System Operator (ISO) for the construction and temporary operation of a transmission facility.

approximately eight kilometres long and would connect the Nova 1005S Substation to AltaLink's existing Transmission Line 927L.

8. The expected construction start date for the project was stated to be the second quarter of 2024 and the expected in-service dates for the power plant and the transmission line were anticipated for the fourth quarter and first quarter of 2025, respectively. Nova Solar requested that a construction completion date of July 27, 2026, be used in the project approval.<sup>3</sup>

## 2.2 AltaLink Management Ltd.'s applications

9. AltaLink requested approval of the following:

- To modify existing Transmission Line 927L to facilitate the T-tap connection of Nova Solar's proposed Transmission Line 927AL.
- To connect existing Transmission Line 927L to proposed Transmission Line 927AL.
- To install a new telecommunications tower (up to 29 metres tall), designated as the Nova 1005R Radio Site, in Nova Solar's proposed Nova 1005S Substation site.

10. The power plant applications were registered on August 22, 2022, while the transmission line applications were registered on October 31, 2022. As requested by Nova Solar, the Commission combined the power plant applications and the transmission line applications together into one proceeding.

11. The Commission appreciates having both the power plant applications and transmission line applications before it. The Commission believes considering power plant and transmission line connection applications in one proceeding is a more efficient approach, compared to considering them in separate proceedings. The Commission endorses this approach wherever feasible.

## 2.3 Interveners

12. After issuing a notice of applications and two notices of hearing for the proceeding, the Commission received statements of intent to participate from the following intervener parties:

- PrairieSky Royalty Ltd. (PSK)
- Federated Co-Operatives Ltd. (FCL)
- Ronnie and Carla Ostrom, Carol Keer, and Lone Star Cattle Co. Ltd. (OKL Group)
- Michael Janzen, RAM Cattle Feeders Ltd. and Route 24 Truck Stop Ltd. (Janzen Group)
- Nora Maidman
- Wheatland County

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<sup>3</sup> Transcript, Volume 1, page 18, lines 14-25.

13. PSK owns the fee simple mineral rights situated under the entirety of the lands within the area of the power project (i.e., sections 2 and 3, Township 22, Range 26, west of the Fourth Meridian).

14. FCL holds legal title to the land at Section 2, Township 9, Range 22, west of the Fourth Meridian, which is on the north side of Township Road 221A along the preferred transmission line route. A fuel terminal called the Carseland Terminal, which is operated by Consumers' Co-operative Refineries Ltd., a wholly owned subsidiary of FCL, is situated on the FCL land.

15. Members of the OKL Group own two properties in proximity to Nova Solar's project:

- North Property<sup>4</sup> at the southeast quarter of Section 9, Township 22, Range 26, west of the Fourth Meridian, which is adjacent to the power plant and the preferred route.
- South Property<sup>5</sup> at the northeast quarter of Section 32, Township 21, Range 26, west of the Fourth Meridian, which is in proximity to the alternate route and is the principal residence of Ronnie and Carla Ostrom.

16. The Janzen Group owns three properties in proximity to the project:

- Lot 1, Plan 9111754 (southeast quarter of Section 4, Township 22, Range 26, west of the Fourth Meridian), which is adjacent to the power plant and the alternate route and is the principal residence of Michael Janzen.
- Northeast quarter of Section 33, Township 21, Range 26, west of the Fourth Meridian, which is in proximity to the alternate route and features a residence associated with a cattle feedlot operation.
- Northeast quarter of Section 4, Township 22, Range 26, west of the Fourth Meridian, which is adjacent to the power plant and directly across Township Road 221A from the preferred route and features an agricultural building site with a large shop, grain storage facilities, and a truck stop currently under construction.

17. Nora Maidman owns land in the northeast quarter of Section 35, Township 21, Range 26, west of the Fourth Meridian, which is adjacent to the southeast corner of the power plant boundary and is her principal residence.

18. Wheatland County submitted a statement of intent to participate on September 29, 2022, indicating Nova Solar must submit necessary documents at the development permit stage, including a construction management plan, a stormwater management plan, a screening plan for adjacent residents, a conceptual traffic impact assessment, and a setback map for residential dwellings.<sup>6</sup> In a ruling dated October 31, 2022, the Commission denied the County's request for standing but granted the County a right to participate to the extent indicated in the County's statement of intent to participate. On November 14, 2022, the County filed a letter that confirmed

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<sup>4</sup> The North Property is owned by Ronnie and Carla Ostrom and Carol Keer.

<sup>5</sup> Ronnie and Carla Ostrom reside and work on the South Property, which is owned by Lone Star Cattle Co. Ltd.

<sup>6</sup> Exhibit 27589-X0029, Statement of intent to participate from Wheatland County; Exhibit 27589-X0030, Additional letter from Wheatland County.

Nova Solar has committed to work with the County to ensure its potential concerns are mitigated.<sup>7</sup>

19. The Commission granted standing to the interveners for the reasons set out in its rulings issued on October 31, 2022, and December 9, 2022.<sup>8</sup> The Commission held an oral hearing from March 20 to March 24, 2023, to consider the applications and concerns raised. The registered participants in the proceeding and the registered appearances for the oral hearing can be found in appendixes A and B, respectively.

### 3 The approval framework for the applications

20. The Commission is an independent, quasi-judicial agency of the province of Alberta. In this section of the decision, the Commission describes the legal landscape in which its decisions are made when considering power plant and transmission line applications.

21. When the Commission receives an application to construct and operate a power plant or a transmission line, Section 17(1) of the *Alberta Utilities Commission Act* is engaged. Section 17(1) states the following:

Where the Commission conducts a hearing or other proceeding on an application to construct or operate a hydro development, power plant or transmission line under the *Hydro and Electric Energy Act* or a gas utility pipeline under the *Gas Utilities Act*, it shall, in addition to any other matters it may or must consider in conducting the hearing or other proceeding, give consideration to whether construction or operation of the proposed hydro development, power plant, transmission line or gas utility pipeline is in the public interest, having regard to the social and economic effects of the development, plant, line or pipeline and the effects of the development, plant, line or pipeline on the environment.

22. The Commission must also take into consideration the purposes of the *Hydro and Electric Energy Act* and the *Electric Utilities Act*. These statutes provide for economic, orderly and efficient development of facilities and infrastructure, including power plants, in the public interest, and set out a framework for a competitive generation market, where decisions about whether and where to generate electricity are left to the private sector.

23. As a starting point in its assessment of a power plant or transmission line application, the Commission requires the applicant to comply with the various requirements in Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines*.

24. The applicant has the onus to demonstrate that approval of its application is in the public interest. Parties who may be directly and adversely affected by the Commission's approval of the application may show how the applicant has not met its onus. These parties may do so by bringing evidence of the effects of the project on their own private interests and explaining how the public interest may be better served by accommodating their private interests, and they may use the evidence filed by all parties to the proceeding to argue what a better balancing of the

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<sup>7</sup> Exhibit 27589-X0056, Acknowledgment of Applicant response.

<sup>8</sup> Exhibit 27589-X0123, AUC ruling on standing for transmission connection applications; Exhibit 27589-X0046, AUC ruling on standing.



public interest might be. It is the Commission's role to test the application to determine whether its approval is in the public interest.

25. The existence of applicable regulatory standards and guidelines, including those from other municipal, provincial and federal authorities, and a proponent's adherence to these standards are important elements in deciding if potential adverse impacts are acceptable. The Commission has previously affirmed that the public interest will be largely met if an application complies with existing regulatory standards, and the project's public benefits outweigh its negative impacts.<sup>9</sup>

26. When the Commission approves a project, it does so having considered the entirety of the proceeding record including the representations and commitments made by an applicant. The Commission's determination that a project is in the public interest is informed by, and in many cases contingent on, the commitments made by an applicant. In some cases, where the Commission finds it necessary to supplement or clarify the terms of a commitment, the Commission may include a commitment as a condition of approval. However, the Commission considers commitments to be binding on an applicant regardless of whether or not the commitment is included as a condition in an approval.

#### **4 Power plant and substation applications**

27. In response to Nova Solar's applications to construct and operate the 150-MW Nova Solar Power Plant and the associated Nova 1005S Substation, the interveners raised several concerns. These included impacts to PSK's mineral rights, adequacy of consultation, concerns about the project layout, environmental impacts, property value and visual impacts, and glare.

##### **4.1 Mineral rights**

28. PSK holds a large portfolio of independently owned fee simple mineral title lands. PSK does not conduct operations to explore for, develop or produce petroleum or natural gas, but grants petroleum and natural gas leases to third parties, reserving back a lessor royalty.<sup>10</sup>

29. PSK raised concerns that its mineral rights under the project lands would be directly and adversely affected by the solar project, which will cover most of the surface lands. Specifically, PSK stated that the project would negatively impact PSK's ability to access its freehold mineral rights, thereby negatively impacting the value of those rights "by ensuring [its] mineral title is sterilized, resulting in a *de facto* expropriation of [its] core assets."<sup>11</sup>

30. The Commission is mindful of the significance of title to mines and minerals: PSK's fee simple mineral title grants "all mines and minerals," and the "right to work" the same "within, upon or under" the land where the project is proposed to be situated.<sup>12</sup> A right to mines and minerals includes the right to work, dig and use all reasonable means to recover the minerals in

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<sup>9</sup> Alberta Energy and Utilities Board Decision 2001-111: EPCOR Generation Inc. and EPCOR Power Development Corporation - 490-MW Coal-Fired Power Plant, Application 2001173, December 21, 2001, PDF page 12.

<sup>10</sup> Exhibit 27589-X0259, Written Evidence of PrairieSky (new unredacted version), PDF page 5.

<sup>11</sup> Exhibit 27589-X0024, SIP from PrairieSky.

<sup>12</sup> Exhibit 27589-X0045, PrairieSky Reply to Nova Submission on Standing, PDF page 9.

accordance with *Alberta Energy Co v Goodwell Petroleum Corp.*<sup>13</sup> Attached to that right is a right of entry to the surface of the lands, which is to be exercised in accordance with the *Surface Rights Act*,<sup>14</sup> and other applicable provincial legislation.

31. The Commission recognizes the potential for conflict between parties in a split title situation, as here, where the surface occupant of the land (Nova Solar) intends to cover most of two sections of land with solar panels, and where the owner of mines and minerals (PSK) is concerned about access to and the corresponding value of its subsurface resources in the same parcels of land. The Commission acknowledges that solar projects covering large tracts of surface lands for many decades may present challenges for future oil and gas activity on those lands. In such a situation, a robust consultation process by the applicant is important because both parties have significant interests at stake and much to potentially lose if they cannot resolve their differences on their own. The potential for conflict was unfortunately borne out in this case, where it appears that Nova Solar and PSK chose positional and entrenched approaches to consultation and discussions, rather than engaging with each other with the *bona fide* intention to achieve common ground and agreement.

32. The Commission notes that the surface lands in this case are currently actively farmed, and are also zoned industrial, which means that an oil and gas operator negotiating with landowners for current and future surface access would work to minimize the impacts on farming activities. The oil and gas operator would also take into account the impacts on the future industrial use of the lands, in a general way regarding obvious impediments to future site usage and in a more specific way if an industrial development was pending.

33. PSK witnesses recognized the importance of such collaborative work with local landowners. During the hearing, Paul Starnino, a witness for PSK, stated that:

...there's always consultation with the landowners. They have, obviously, a vested interest. That's part of their livelihood. When it comes to drill well sites, there's always a consultation and some compensation for land access and size. They always work with the landowner for good relationships; and then they typically should have a conversation regarding future developments, where they might go, where the operator may be interested in going, the magnitude of the project, because it's always in best interest and - - for the operators to work with the landowners for sure, so that is paramount for the operator for relationships.<sup>15</sup>

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<sup>13</sup> 2003 ABCA 277 at paragraph 64.

<sup>14</sup> RSA 2000, c S-24. It may be noted in this respect that at common law, upon severance of the title to the minerals from the title to the surface, a right of entry to the surface lands arose by necessary implication: see *Cabre Exploration Ltd v Arndt*, [1986] 4 WWR 529 (ABQB) at paragraph 15. While the common law right was modified by the *Surface Rights Act*, to provide an orderly exercise of the rights of the landowner and operator and to provide a right to the landowner to receive compensation (*Cabre* at paragraph 23), it would not appear to have fundamentally changed the nature of the underlying right of entry.

<sup>15</sup> Redacted Transcript, Volume 2, page 215, lines 14-25 and page 216, line 1.

34. Similarly, Doug Ashton from Sproule Associates Ltd., another witness for PSK, stated that:

I think the operating company would always work with the landowners to try and minimize the impact on the farming operations and try to come up with a solution that would work best for both parties.<sup>16</sup>

35. The Commission also notes that Section 25 of the *Surface Rights Act*<sup>17</sup> requires that the Land and Property Rights Tribunal consider the following in determining compensation payable to a surface rights holder:

- The amount the land granted to the operator might be expected to realize if sold in the open market by a willing seller to a willing buyer on the date the right of entry order was made.
- The per acre value, on the date the right of entry order was made, of the titled unit in which the land granted to the operator is located, based on the highest approved use of the land.
- The loss of use by the owner or occupant of the area granted to the operator.
- The adverse effect of the area granted to the operator on the remaining land of the owner or occupant and the nuisance, inconvenience and noise that might be caused by or arise from or in connection with the operations of the operator.<sup>18</sup>

36. In other words, an oil and gas operator should be motivated to minimize the surface land area needed for its operations, as well as surface land costs and adverse effects.

#### 4.1.1 Nova Solar's consultation with PrairieSky Royalty Ltd.

37. From the record it appears that Nova Solar consulted with PSK between October 2021 and August 2022, with only three oral communications in March, April and August 2022.<sup>19</sup> Nova Solar and PSK discussed accommodation for PSK's mineral rights on the project land from two perspectives: mitigation (i.e., changes to the design and/or layout of the project to reduce potential impacts) and compensation (i.e., payment in recognition of adverse impacts). The parties did not reach an agreement.

38. With respect to potential mitigation, PSK's position was that it could not identify its needs with precision or present concrete plans for oil and gas development because, (i) PSK is not an operator and it does not directly produce or operate oil and gas assets; and (ii) when PSK executes a lease with an operator, it does not prescribe or direct where and how to drill.<sup>20</sup> PSK advised that it proposed a number of compensation structures that would fairly compensate it for the impact of the project on PSK's interests.<sup>21</sup> Meanwhile, the record suggests that Nova Solar

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<sup>16</sup> Redacted Transcript, Volume 2, page 218, lines 17-20.

<sup>17</sup> RSA 2000, c. S-24.

<sup>18</sup> RSA 2000, c. S-24, Section 25(1)(a), (b) and (c).

<sup>19</sup> Exhibit 27589-X0027.01, Nova Solar AUC IR Responses 2022SEP09, PDF pages 10-11.

<sup>20</sup> Redacted Transcript, Volume 1, page 58, lines 13-21. Redacted Transcript, Volume 2, page 234, lines 22-24; Exhibit 27589-X0445, Written Argument of PrairieSky, PDF pages 9-10.

<sup>21</sup> Redacted Transcript, Volume 1, pages 149-151.

did not seriously entertain PSK's proposals of compensation, at least in part because those proposals might have rendered the project unviable in its opinion.<sup>22</sup>

39. PSK asserted that Nova Solar did not make genuine attempts to address PSK's concerns. In PSK's view, consultation was defective and clearly fell short of the tenets of Rule 007. Nova Solar countered that the absence of detailed discussions with PSK with respect to compensation structures did not represent a failure in consultation.<sup>23</sup>

40. Nova Solar indicated that it is only obligated to mitigate project impacts on PSK to the extent it is commercially reasonable to do so, including potentially through project layout adjustments, which it submits it attempted to do.<sup>24</sup> However, PSK failed to identify its surface needs for mineral development on the project land and failed to present any oil and gas development plans that could be concretely accommodated through layout adjustments.<sup>25</sup>

41. Rule 007 states that personal consultation “[g]oes beyond personal notification and refers to meaningfully engaging with individuals and groups about the project and includes listening and responding to any objections to the project.”<sup>26</sup> Rule 007 further states that the applicant “must make reasonable attempts to contact stakeholders..., provide information about the project, discuss the project, and address any questions and concerns.”<sup>27</sup> These requirements were reiterated in a recent Commission decision where the panel indicated that in order to have “meaningful engagement,” the applicant should “attempt to address concerns raised about the project during consultation.”<sup>28</sup>

42. In the Commission's view, while Nova Solar's consultation efforts with PSK may have met the bare requirements of Rule 007, this was not an example of effective consultation. Nova Solar attempted to communicate with PSK during the consultation process; however, its suggestions for addressing PSK's concerns are somewhat disingenuous - Nova Solar could not agree to the magnitude of compensation requested by PSK and therefore offered project layout modifications,<sup>29</sup> but then stated in the hearing that layout modifications that would reduce the capacity of the power plant would render the project not viable.<sup>30</sup>

43. Likewise, PSK's response to the consultation efforts made by Nova Solar appeared no less entrenched, and focused on compensation. Overall, the Commission considers that PSK could have done more to facilitate a resolution with Nova Solar. As an example, instead of defaulting to the concept of its business model,<sup>31</sup> [REDACTED]

<sup>22</sup> Redacted Transcript, Volume 1, page 166, lines 1-10 and 14-19, page 121, lines 24-25 and page 122, lines 1-7.

<sup>23</sup> Exhibit 27589-X0435, Nova Solar Written Argument (CONFIDENTIAL) Redacted, PDF page 8.

<sup>24</sup> Redacted Transcript, Volume 1, page 58, lines 13-17, page 110, lines 13-16.

<sup>25</sup> Exhibit 27589-X0435, Nova Solar Written Argument (CONFIDENTIAL) Redacted, PDF page 8 and 18-19.

<sup>26</sup> Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines*, PDF page 124.

<sup>27</sup> Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines*, PDF page 133.

<sup>28</sup> Decision 27527-D01-2023: Mojek Resources Inc., Gage Bitcoin Mine Power Plant, Proceeding 27527, Application 27527-A001, March 7, 2023.

<sup>29</sup> See Exhibit 27589-X0337, Written Reply Evidence – Nova Solar to PSK, PDF pages 8-10, and Redacted Transcript, Volume 1, page 110, lines 20-25 and page 111, line 1.

<sup>30</sup> Redacted Transcript, Volume 1, page 124, lines 19-20.

<sup>31</sup> In the hearing, PSK repeatedly relied on its business model of only leasing oil and gas rights and leaving all development decisions to the lessee, as support for its position that it could not provide concrete oil and gas development information to Nova Solar to identify potential layout changes.

44. PSK confirmed at the hearing that in negotiations with Nova Solar, it did not address formations that could be drilled directionally from nearby lands.<sup>32</sup> PSK acknowledged that for typical drilling operations, there are always negotiations with the surface owner to attempt to minimize surface impacts on farming activities.<sup>33</sup> [REDACTED]

45. The above discussion reflects the Commission's view that both parties share blame in their respective approaches during the consultation process. The Commission is disappointed that the parties failed to reach a resolution.

#### 4.1.2 Industry practice and literature regarding agreements between developers and mines and minerals holders

46. Related to the consultation issue is a question that the Commission asked the parties to comment on during this proceeding; that is, whether there is an industry practice whereby solar developers using surface lands compensate subsurface rights holders whose subsurface rights may be affected by the extent of the proposed surface activities.<sup>35</sup> Not surprisingly, the parties disagreed about the existence of such a practice.<sup>36</sup>

47. PSK submitted that while solar farms in Alberta are a relatively recent development, such an industry practice does exist. PSK is aware of a number of examples in the past six years wherein conflict arose between a solar developer and a subsurface rights owner in the context of an AUC proceeding. PSK submitted that it is customary for subsurface rights holders to file statements of intent to participate seeking to address their concerns; and that as a result of the subsurface rights owners' participation in such AUC proceedings, it is industry practice for the parties to reach an agreement whereby the subsurface rights owners' concerns are addressed by the applicants, leading to the withdrawal of their objection previously filed.

48. At the hearing, Cameron Proctor on behalf of PSK, stated that recommended practices in U.S. state jurisdictions<sup>37</sup> should be applied in Alberta, and emphasized that parties should "have a constructive dialogue" in order to reach a reasonable agreement.<sup>38</sup> PSK does not require

<sup>32</sup> Redacted Transcript, Volume 2, page 212, lines 4-13.

<sup>33</sup> Redacted Transcript, Volume 2, Page 215, lines 7-25, page 216 lines 1-20.

<sup>35</sup> Exhibit 27589-X0261, AUC ruling on Nova Solar G.P. Inc. motion to strike evidence, paragraph 9.

<sup>36</sup> Exhibit 27589-X0310, PrairieSky Reply to Commissions Informal Information Request; and Exhibit 27589-X0312, Letter to AUC re Nova Solar's Response to the Commission's Queries.

<sup>37</sup> PSK cited an article entitled "Mineral Issues' Impact on Solar Energy Development in Texas and other States" by David Sewell and Brent Stahl. See Exhibit 27589-X0259, Written Evidence of PrairieSky redacted version at Appendix B, PDF 53-79.

<sup>38</sup> Redacted Transcript, Volume 2, page 222, lines 17-24.



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

55. The Commission notes from this table that the impacts to PSK would depend on the full extent of the potential for future oil and gas development on the project lands, which is unknown at this time. The information on the record in this proceeding is not conclusive, and the parties interpreted this information in different ways. Having said that, the Commission is not persuaded that there is no oil and gas development potential in the subsurface of the project lands.

**4.1.3.2 Access to PSK’s mineral resources**

56. To address PSK’s concerns about access to its mineral rights on the project land, Nova Solar proposed two specific mitigation options.

57. First, Nova Solar proposed drilling from lands adjacent to the project lands. [REDACTED]

[REDACTED]

58. Second, Nova Solar proposed a location for PSK to drill from in the southwest corner of the project lands. Much of the southwest corner had originally been included in Nova Solar’s project layout for solar panels. However, as a result of concerns from the Janzen Group, Nova Solar increased the setback of the project in the southwest corner. Nova Solar suggested this may allow for drilling.<sup>46</sup>

59. PSK did not consider these mitigation measures to be viable or reasonable options to accommodate its interest. PSK stated that it undertook an internal analysis of the project layout and concluded that accessibility of the subject land for subsurface development by PSK’s lessees will be wholly compromised by the proposed project. It stated:

In practical terms, given the totality of the surface obstruction proposed by Nova in this Application, it was readily apparent to [PSK] that no modification to the layout of the solar farm would be sensical. For an operator, multiple factors are required to be considered in the context of executing oil and gas activities. Given the approximately two mile project boundary, considerations such as multiple well locations for optimum drilling, the sheer complexity and volume of infrastructure required for operational activities such as pipelines, access roads, drilling pads, and the overall minimum lease size requirements for the drilling of each well that must be adhered to for environmental, health and safety measures, etc. all contributed to the conclusion by [PSK] that any ‘modification’ proposed by Nova would be unworkable.<sup>47</sup>

60. [REDACTED]

Although PSK admitted that for production purposes (as opposed to exploration), directional drilling would be possible, PSK is not an operator and stated that it cannot dictate how operators will drill after that exploratory work is complete.<sup>50</sup>

61. In addition, PSK was concerned that if the project gets approved, access to the underlying mineral rights would likely require complicated, costly, and time-consuming regulatory approval processes before the Alberta Energy Regulator and the Land and Property Rights Tribunal and potential litigation involving, for example, the law of nuisance. [REDACTED]

[REDACTED]

[REDACTED] PSK suggested it would be practically impossible to access its minerals without interfering with the solar facility due to the project

[REDACTED]

<sup>46</sup> Exhibit 27589-X0337, Written Reply Evidence – Nova Solar to PSK, PDF page 5.

<sup>47</sup> Exhibit 27589-X0293, PSK Reply to AUC (redacted), PDF page 4.

[REDACTED]

<sup>50</sup> Exhibit 27589-X0445, Written Argument of PrairieSky, PDF page 13, paragraph 38.



footprint. Finally, PSK submitted that any damage to Nova Solar's project would require significant compensation as set out in the *Surface Rights Act*.<sup>51</sup>

#### 4.1.4 Conclusion about whether PSK is directly and adversely affected

62. Having considered the evidence and argument of the parties, the Commission is satisfied, on the balance of probabilities, that PSK would be directly and adversely affected by approval of the Nova Solar project. The reasons for this include: (i) PSK's fee simple title to mines and minerals of the project lands; (ii) the potential for subsurface resource development of the project lands; and (iii) the potential that as a result of the project footprint, future access to PSK's mines and minerals will be more challenging and/or costly.

63. The overriding question for the Commission on Nova Solar's applications is whether construction or operation of the power plant is in the public interest, having regard to the social and economic effects of the power plant and the effects of that power plant on the environment.<sup>52</sup> Issues relating to PSK are one component of the broader assessment that the Commission must undertake in deciding whether the project is in the public interest.

64. Parties that intervene in Commission proceedings are frequently directly and adversely affected by applications brought by proponents for the approval of facilities, but that does not mean that the application ought to be denied. Mitigation is often offered by a proponent, and short of some agreement between the parties in that regard, the proponent may make commitments to the intervener during the course of a proceeding, or the Commission may make its approval conditional upon certain steps being taken by a proponent to mitigate, in whole or in part, the adverse effects on that party. In other cases, the Commission may approve an application as being in the public interest, without requiring any mitigative steps.

65. In this case, Nova Solar's ability to put forth mitigation was limited by PSK's failure to put forward realistic information on potential drilling and related developments. While the Commission does not expect PSK to have put forward a fully developed proposal including a reserves evaluation and drilling plan, the Commission does expect more than pure speculation on potential drilling and development locations. [REDACTED]

66. Clearly there is considerable risk to both parties in the absence of an agreement on mitigation or compensation. For PSK, approval of the Nova Solar project may mean that its value in the lands is diminished because, for the life of the solar project, accessing mines and minerals may be more challenging than if the solar farm were not to go ahead. On the other hand, if the project is approved, Nova Solar will need to accept a level of uncertainty regarding the potential for litigation or for future oil and gas development on the project lands.

## 4.2 Consultation with Janzen Group and Nora Maidman

67. Nova Solar submitted that during the participant involvement program (PIP), it considered potential impacts to nearby residents and incorporated their feedback to optimize the layout for the proposed power plant. In particular, Nova Solar modified the solar panel

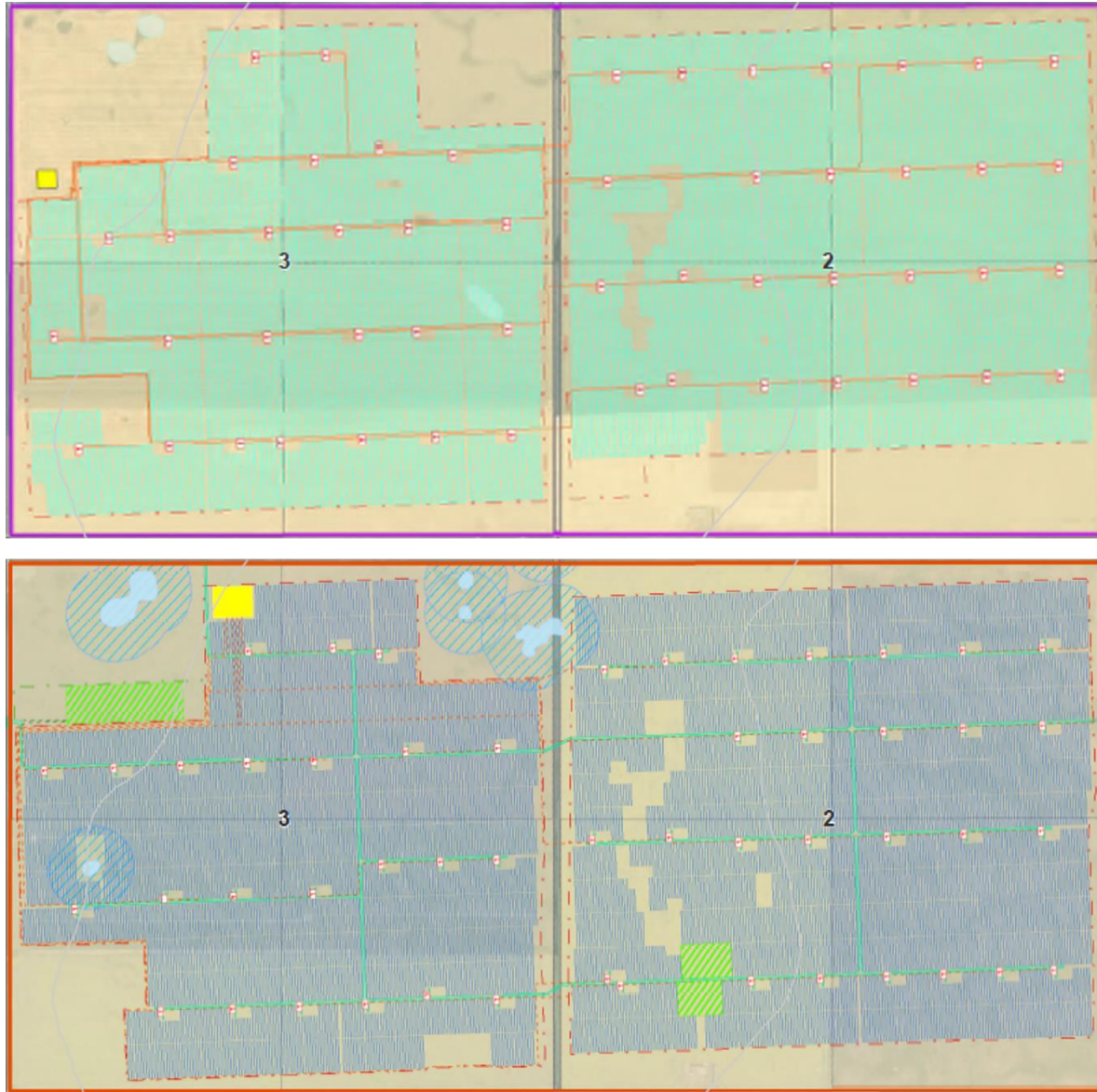
<sup>51</sup> Exhibit 27589-X0259, Written Evidence of PrairieSky (new unredacted version), PDF pages 10-12.

<sup>52</sup> *Alberta Utilities Commission Act*, Section 17.

configuration increasing the setback from M. Janzen’s residence by approximately 200 metres, resulting in a setback of approximately 400 metres.<sup>53</sup>

68. The original layout and the proposed layout for the power plant are presented below.<sup>54</sup>

**Figure 2. Original layout (above) and proposed layout (bottom) for the power plant**



**Legend**

- Proposed substation
- Fence
- Inverters
- Laydown Yard

<sup>53</sup> Exhibit 27589-X0027.01, Nova Solar AUC IR Responses 2022SEP09, PDF page 14; Exhibit 27589-X0318, Written Reply Evidence of Nova Solar, PDF page 10.

<sup>54</sup> Exhibit 27589-X0198, Report of Gettel Appraisals re Real Estate Impact, Jan 18, 2023, PDF page 22; Exhibit 27589-X0014, Appendix L - Participant Involvement Program Report, PDF page 35 (original layout), and PDF page 41 (amended layout).

#### 4.2.1 Consultation with Janzen Group

69. M. Janzen submitted that Nova Solar provided “bare minimum consultation efforts” during consultation.<sup>55</sup> M. Janzen’s view is Nova Solar’s statement that it accommodated M. Janzen’s concerns by increasing the setback from the Janzen residence is “misleading.”<sup>56</sup> The Commission notes that Nova Solar provided stakeholders with two different reasons why it increased the setback on the southwest corner of Section 3: (i) to accommodate M. Janzen’s concerns about project impacts to his residence, and (ii) to offer a potential location for PSK to develop subsurface resources. In addition, M. Janzen argued that Nova Solar increased this setback in order to satisfy requirements of the Goldfinch ASP.

70. Regarding the southwest corner of Section 3, the Commission acknowledges that Nova Solar consulted individually with M. Janzen and PSK; however, there is no evidence that these stakeholders were consulted about the potential competing interest in the purpose of the increased setback (distance from M. Janzen’s residence and a potential drilling location for PSK). The Commission finds consultation with M. Janzen about that setback was not transparent given Nova Solar did not advise M. Janzen of its second reason for increasing the setback.

71. Although Nova Solar claimed it collaboratively considered stakeholders’ concerns and then made a decision to increase the setback at the southwest corner of Section 3, because of the lack of transparent communication between Nova Solar and impacted stakeholders, the Commission does not believe this setback was the result of a collaborative effort. Instead, the Commission finds Nova Solar’s consultation regarding this matter resulted in potential confusion, rather than clarity, which is not in line with the purposes of a PIP in accordance with Rule 007.

#### 4.2.2 Consultation with Nora Maidman

72. Although N. Maidman expressed concerns about certain aspects of the project (e.g., loss of farmland, weed and pest control, and decreased property value), she clarified at the hearing that she is generally in favour of the project. N. Maidman explained that once the County rezoned the land to heavy industrial through its Goldfinch ASP, the land in the project area, which is currently used for agriculture, was destined to be used for industrial purposes. N. Maidman indicated that she would prefer to live beside a solar farm than other types of industrial development.<sup>57</sup> N. Maidman stated that the communication between Nova Solar and herself was acceptable.

73. The Commission observed that when the original project layout was updated in July 2022, the solar panels were placed closer to N. Maidman’s property. At the hearing, the Commission asked Nova Solar about the distance between the solar panels in the proposed layout and N. Maidman’s property, and whether Nova Solar discussed the changes to the project layout with N. Maidman. In response, Nova Solar explained that the minimum distance between N. Maidman’s residence and project solar panels decreased by 115 metres (to approximately 400 metres between her residence and the nearest solar panels). N. Maidman was personally consulted on the project after a project-specific information package for the updated project design was delivered in July 2022. However, it does not appear that Nova Solar specifically

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<sup>55</sup> Exhibit 27589-X0443, Final Argument on behalf of Janzen Group, Apr 14, 2023, PDF page 6.

<sup>56</sup> Exhibit 27589-X0443, Final Argument on behalf of Janzen Group, Apr 14, 2023, PDF page 6.

<sup>57</sup> Transcript, Volume 5, page 584, lines 19-25; page 585, lines 1-8.

informed N. Maidman that the solar panels had moved closer to her property, and this move was not readily apparent from the map provided by Nova Solar.

74. Although Nova Solar provided a visual simulation reflecting the current layout to address N. Maidman's concerns about visual impacts, the Commission considers that Nova Solar ought to have done more to inform N. Maidman that the updated project layout meant that the solar panels were being moved closer to her property. More generally, where changes to the project are proposed in consultation, an applicant should provide clear information in writing or in person, to ensure a stakeholder will understand the changes.

75. The Commission notes that both M. Janzen and N. Maidman expressed surprise that no open house was held in Carseland. Rule 007 notes that an open house is one of a number of public notification options a proponent may consider in planning its PIP. The Commission recognizes a number of factors would go into deciding whether to hold an open house, and open houses have been observed to have varying degrees of effectiveness. Ultimately, the key is for the proponent to provide an opportunity for meaningful engagement with interested stakeholders (regardless of whether stakeholders are inside or outside the consultation and notification radius), and one-on-one communication generally provides a better opportunity for this engagement.

### **4.3 Environmental impacts**

76. In this section of the decision, the Commission first determines that the power plant was well-sited from an environmental perspective, which was confirmed by the Alberta Environment and Protected Areas (AEPA)<sup>58</sup> renewable energy referral report.<sup>59</sup> Then it examines other issues related to clubroot, weeds and soil degradation, and finds that the mitigations committed to by Nova Solar suitably address the risk.

#### **4.3.1 Overall environmental risk**

77. The Commission is of the opinion that Nova Solar suitably considered the standards and best management practices outlined in the *Wildlife Directive for Alberta Solar Energy Projects* when initially selecting a site for the project. The directive considers “[a]ppropriate site selection at the landscape level [as] the first and most critical factor in preventing significant negative effects on wildlife.”<sup>60</sup> The environmental suitability of this site is confirmed by the AEPA referral report, which determined an overall low risk to wildlife and wildlife habitat, with low risks for individual factors assessed within the referral report (e.g., fencing, avian mortality, wildlife features).<sup>61</sup>

#### **4.3.2 Post-construction monitoring**

78. Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants* requires approval holders to submit to AEPA and the Commission annual post-construction

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<sup>58</sup> On October 24, 2022, Alberta Environment and Parks (AEP) was renamed the Ministry of Environment and Protected Areas. Any references to AEP in Rule 033: *Post-approval monitoring requirements for wind and solar power plants* and elsewhere that relate to forward-looking obligations or commitments between the applicant and AEP should be interpreted as meaning Alberta Environment and Protected Areas (AEPA).

<sup>59</sup> Exhibit 27589-X0012, Appendix J - Renewable Energy Referral Report and IRs.

<sup>60</sup> *Wildlife Directive for Alberta Solar Energy Projects*, Alberta Environment and Parks, effective October 4, 2017.

<sup>61</sup> Exhibit 27589-X0012, Appendix J - Renewable Energy Referral Report and IRs, PDF page 3.

monitoring survey reports. Therefore, the Commission imposes the following condition of approval:

- a. Nova Solar G.P. Inc. shall submit an annual post-construction monitoring survey report to Alberta Environment and Protected Areas (AEPA) and the Commission no later than January 31 of the year following the mortality monitoring period, and on or before the same date every subsequent year for which AEPA requires surveys pursuant to subsection 3(3) of Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants* and Section 4.0 of the Post-Construction Survey Protocols for Wind and Solar Energy Projects.

79. If post-construction monitoring reveals that wildlife mortalities exceed acceptable levels (as determined by AEPA), Nova Solar is required to implement additional mitigation measures in consultation with AEPA.

### 4.3.3 Risk of impacts from clubroot, weeds and soil degradation

80. Concerns with the introduction and spread of noxious weeds and invasive species, including clubroot, were a key environmental concern for the Janzen Group.<sup>62</sup>

81. In response to concerns regarding clubroot, WSP, an environmental consulting company retained by Nova Solar, confirmed with Wheatland County that clubroot risk was relatively low. Nova Solar has committed to ensure project lands are tested for clubroot.<sup>63</sup> In addition, Nova Solar committed to washing or steam cleaning equipment before arriving on site, and disinfecting equipment moving from a known area of clubroot infestation before arriving on site with a one per cent bleach solution. This commitment is in accordance with the Alberta Clubroot Management Plan<sup>64</sup> and the Wheatland County cleaning recommendations.<sup>65</sup>

82. In response to concerns for weed introduction and spread, WSP, on behalf of Nova Solar, committed to mitigations including equipment cleaning protocols, limiting disturbance, monitoring and inspections, and weed control for noxious and prohibited noxious weeds in accordance with the Alberta *Weed Control Act* and regulations.<sup>66</sup> Nova Solar committed to generate a soil and vegetation management plan after pre-disturbance site assessment and before construction commences.<sup>67</sup>

83. Regarding concerns about soil degradation, Nova Solar pointed to mitigations provided in the environmental evaluation, environmental protection plan, and the conceptual conservation and reclamation plan.<sup>68</sup>

84. The Commission has determined that Nova Solar's commitments to mitigations and adherence to relevant regulations generally address the risks associated with weeds, soil quality and quantity (e.g., erosion) and clubroot. In addition, the Commission considers that the planned

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<sup>62</sup> Exhibit 27589-X0199, Report of Circle T Consulting re Weed, Vegetation and Soil Degradation and Clubroot Risk Assessment, PDF page 4.

<sup>63</sup> Exhibit 27589-X0318, Written Reply Evidence of Nova Solar, PDF page 11.

<sup>64</sup> Alberta Clubroot Management Plan, Alberta Government, effective August 2014.

<sup>65</sup> Exhibit 27589-X0324, Attachment 5 - WSP Reply to Circle T Report, PDF pages 7 to 8.

<sup>66</sup> Exhibit 27589-X0009, Appendix G - EPP\_Rev1, PDF pages 23 to 26, and Exhibit 27589-X0324, Attachment 5 - WSP Reply to Circle T Report, PDF pages 4 to 6.

<sup>67</sup> Exhibit 27589-X0433.01, Nova Solar Undertaking Response to AUC re List of Commitments, PDF 10.

<sup>68</sup> Exhibit 27589-X0008, Appendix F - Environmental\_Evaluation\_Rev0. Exhibit 27589-X0009, Appendix G - EPP\_Rev1. Exhibit 27589-X0010, Appendix H - CC&R Plan\_Rev0.

soil and vegetation management plan and clubroot testing will serve to decrease the risks of spreading noxious weeds, prohibited noxious weeds, and clubroot.

85. In summary, the Commission expects Nova Solar to uphold its commitment to generate a soil and vegetation management plan following the completion of the pre-disturbance site assessment, and prior to the start of construction.

#### 4.4 Property value and visual impacts

86. The Janzen Group expressed concerns that the project development will have negative property value and visual impacts on the Janzen Group's properties.<sup>69</sup> The Janzen Group retained Brian Gettel of Gettel Appraisals Ltd. to assess the impact of the project on property values.<sup>70</sup> Nova Solar retained Glen Doll of Serecon Inc. to review evidence from B. Gettel and provide reply evidence on property value<sup>71</sup> and WSP to prepare visual simulations for the Janzen and Maidman residences.<sup>72</sup> The assessments from B. Gettel and G. Doll draw different conclusions on negative impacts from the project to the value of Janzen Group's properties.

87. B. Gettel stated that there are a number of variables which can exert an impact on real estate values for properties adjoining operational solar farms, which include visual, electromagnetic fields/radiation, damage to ecosystem, noise, increased traffic, dust and weed problems. B. Gettel submitted that visual impacts are of primary concern, because this is considered the key negative impact that can arise being adjacent to a solar farm and impact residential property value.<sup>73</sup>

88. B. Gettel used three impact scenarios to describe the relationship between property value impacts and percentage losses: low impact: 0 per cent to 10 per cent; average impact: 10 per cent to 15 per cent+; and maximum impact: 20 per cent to 40 per cent. B. Gettel's assessment of potential project impacts on real estate values for each of M. Janzen's three properties are summarized below.

- Lot 1, Plan 9111754 (southeast quarter of Section 4, Township 22, Range 26, west of the Fourth Meridian (SE-4-22-26-W4) (M. Janzen's residence): B. Gettel submitted that impacts to property value will be most significant for Lot 1, Plan 9111754, because the front face of the residence will look directly into the project. B. Gettel concluded the size and scale of the project will reduce the market value of the Lot 1 property by five per cent to 10 per cent (low impact but close to average impact).
- The northeast quarter of Section 33, Township 21, Range 26, west of the Fourth Meridian (NE-33-21-26-W4) (residential): B. Gettel concluded the project will negatively impact the market value of this property by zero per cent to five per cent (low impact).

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<sup>69</sup> Exhibit 27589-X0051, Michael Janzen - Ram Cattle Feeders Ltd and Route 24 Truck submission.

<sup>70</sup> Exhibit 27589-X0198, Report of Gettel Appraisals re Real Estate Impact, Jan 18, 2023.

<sup>71</sup> Exhibit 27589-X0322, Attachment 3 - Serecon Reply to Janzen Gettel Report and Author CV.

<sup>72</sup> Exhibit 27589-X0323, Attachment 4 - Visual Simulation of Project Layout near Janzen Residence. Exhibit 27589-X0432, Letter to AUC re Nova Solar Undertakings for March 22 and 23, 2023, PDF pages 42-43.

<sup>73</sup> Exhibit 27589-X0198, Report of Gettel Appraisals re Real Estate Impact, Jan 18, 2023, PDF page 22.

- The northeast quarter of Section 4, Township 22, Range 26, west of the Fourth Meridian (non-residential): B. Gettel concluded there will be no project impacts to the market value of this property.<sup>74</sup>

89. G. Doll disagreed with the analysis and conclusions of the Gettel assessment. G. Doll noted that the Gettel Report relies on subjective public and media reactions to solar development rather than objective market data for its conclusions. G. Doll disputed B. Gettel's use of property list prices (as opposed to sale prices) and the cost of specific property upgrades (rather than the market value of such upgrades) in making conclusions regarding the impact of solar projects on property values. Further, G. Doll pointed out B. Gettel failed to account for any pre-existing adverse impact associated with industrial activities already occurring in the vicinity of the Janzen land, and failed to discuss the mitigating impact of visual screening in the form of existing trees along the north and northeast of the Janzen residence. G. Doll submitted that the Goldfinch ASP is an indication of probable future land use; as a result, "it is not the proposed Project which will create an industrial character, but rather the nature of the area and the numerous industrial developments both planned and already in place."<sup>75</sup> G. Doll's assessment reached the following conclusions:<sup>76</sup>

- Lot 1, Plan 9111754 (SE-4-22-26-W4) (M. Janzen's principal residence): After reviewing a visual simulation of the view from Lot 1, Plan 9111754, G. Doll believes the potential property value impact to the residential property would be five per cent or less.
- NE-33-21-26-W4 (residential): the project would have no impact on the market value of this property.

90. Specific to visual impacts, Nova Solar explained that because the Janzen and Maidman residences are both approximately 400 metres from the nearest solar panels, and because the maximum height of the project panels is 2.54 metres, visual simulations show the project solar panels would be minimally or not visible from these residences.<sup>77</sup>

91. Nova Solar committed to install visual screening in consultation with M. Janzen. Specifically, Nova Solar plans to install new trees to screen visual impacts to the Janzen residence that is adjacent to the power plant and will consult with M. Janzen on selecting the types of trees.<sup>78</sup>

92. Nova Solar argued that although some impact to the value of the Janzen residence may result from the project, given the industrial use and zoning of the area (i.e., the Janzen residence is located within the Goldfinch ASP) and Nova Solar's decision to set back the solar panels from this parcel while committing to visual screening, the magnitude of such impact is likely to be very low or nil.<sup>79</sup>

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<sup>74</sup> Exhibit 27589-X0275, Information Request Responses to Alberta Utilities Commission by Janzen, PDF page 4.

<sup>75</sup> Exhibit 27589-X0322, Attachment 3 - Serecon Reply to Janzen Gettel Report and Author CV, PDF page 1.

<sup>76</sup> Exhibit 27589-X0322, Attachment 3 - Serecon Reply to Janzen Gettel Report and Author CV, PDF page 4.

<sup>77</sup> Exhibit 27589-X0435, Nova Solar Written Argument (CONFIDENTIAL) Redacted, PDF page 14.

<sup>78</sup> Exhibit 27589-X0433.01, Nova Solar Undertaking Response to AUC re List of Commitments, PDF page 3.

<sup>79</sup> Exhibit 27589-X0435, Nova Solar Written Argument (CONFIDENTIAL) Redacted, PDF page 15.

93. The Commission does not have the jurisdiction to order applicants to pay compensation to adjacent landowners for potential property value impacts. Notwithstanding, the Commission does weigh any adverse property value impacts when considering whether the project is in the public interest.

94. Assessing property value is a complex process and technical matter that is influenced by a wide variety of contextual and circumstantial factors. The project will alter the landscape of the area and the Commission accepts that changes to views can influence an individual's perception of the value of an area as a place to reside. However, it is difficult to assign a value to this, in part because the project lands are zoned for heavy and mixed industrial uses in the County's Goldfinch ASP<sup>80</sup> and if this solar project was not approved, the potential exists for some other industrial project to be developed at some point in the future that is potentially more intrusive (e.g., polluting, noisier, or more visually impactful). As N. Maidman noted, she would prefer to live beside a solar farm than other types of industrial development. Moreover, the Commission considers visual screening (e.g., planting new trees) an effective solution to reduce visual impacts from a solar project.

95. Given that visual impacts resulting from the proposed power plant are a specific concern from M. Janzen and N. Maidman and that Nova Solar stated it would install visual screening in consultation with M. Janzen, the Commission imposes the following condition of approval:

- b. Nova Solar G.P. Inc. shall seek input from Michael Janzen and Nora Maidman during the preparation and implementation of a landscaping program, with the goal of addressing these residents' concerns about visual impacts from the project.

96. During the hearing, landowners discussed whether and how Nova Solar should compensate them for property value impacts. B. Gettel's evidence discussed neighbourhood agreements where developers provide compensation to homeowners located next to solar farms. As stated above, the Commission does not have the jurisdiction to order applicants to pay compensation to adjacent landowners for potential property value impacts. That being said, the Commission encourages developers to work with local residents on mitigation measures commonly used to address visual impact concerns, such as installing additional screening (e.g., trees) between the project and nearby residences. The Commission also encourages compensation solutions, such as neighbourhood agreements or community benefit funds, where there are property value impacts.

#### 4.5 Glare

97. Nova Solar retained WSP to complete a glare assessment for the project.<sup>81</sup> In response to a Commission information request, WSP submitted an updated glare assessment based on the most up-to-date modelling software.<sup>82</sup> Janzen Group retained Solas Energy Consulting Inc. to conduct a separate glare assessment.<sup>83</sup> Solas also submitted a report to summarize its review of the WSP glare assessment.<sup>84</sup>

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<sup>80</sup> Exhibit 27589-X0155, Nova Solar-OKL-2022DEC19-007 Attachment 1, PDF page 20.

<sup>81</sup> Exhibit 27589-X0007, Appendix E - Glint and Glare Assessment\_Rev1.

<sup>82</sup> Exhibit 27589-X0291, Nova Solar-AUC-2003FEB06-001-Attachment 1 Updated Glare Assessment.

<sup>83</sup> Exhibit 27589-X0201, Report of Solas Energy re Glare Analysis, Jan 23, 2023.

<sup>84</sup> Exhibit 27589-X0202, Review of Solar Report of Golder Associated, Solas Energy, Jan 23, 2023.



98. Solas used the same software as WSP, GlareGauge, and matched WSP's parameters whenever reasonable. Solas's assessment predicted that all receptors are expected to observe yellow and green glare throughout the year if the trackers tilt below four degrees during the backtracking periods, but if modules remain at angles greater than four degrees in the early mornings and late evenings, no glare is expected for any of the evaluated receptors. Solas confirmed that the implementation of the backtracking limits committed to by Nova Solar will effectively eliminate all instances of glare in its model.

99. Nova Solar confirmed that it will use a resting angle of six degrees for all project solar panels to eliminate predicted glare. Nova Solar pointed out that there is no outstanding dispute between WSP and Solas regarding the potential glare impacts on Janzen residences (or other receptors).

100. Given the interveners' concerns about potential glare impacts and Nova Solar's commitment to use a resting angle of six degrees, the Commission imposes the following condition of approval.

- c. Nova Solar G.P. Inc. shall configure the project solar panels to use a resting angle greater than or equal to six degrees during backtracking periods to mitigate glare effects.

101. The Commission requires Nova Solar to promptly address complaints or concerns from stakeholders regarding glare if Nova Solar receives complaints/concerns once the project commences operations. Therefore, the Commission imposes the following condition of approval.

- d. The Commission requires Nova Solar G.P. Inc. to promptly address any complaint or concern from stakeholders regarding solar glare from the project. Nova Solar shall file a report with the Commission detailing any complaint or concern it receives regarding solar glare from the project during its first year of operation, as well as Nova Solar's response to that complaint or concern. Nova Solar shall file this report no later than 13 months after the project becomes operational.

102. The Commission notes that predictions in the solar glare assessment were premised upon the use of an anti-reflective coating on the project solar panels. Therefore, the Commission imposes the following condition of approval.

- e. Nova Solar G.P. Inc. shall use an anti-reflective coating on the project solar panels.

#### **4.6 Conclusion on power plant and substation applications**

103. The Commission finds that Nova Solar's applications for the power plant and substation meet the requirements of Rule 007 and Rule 012: *Noise Control*. The Commission finds that the power project poses a low risk to wildlife and wildlife habitat, based on project siting, adherence to all wildlife feature setbacks, and commitments made by the proponent to mitigate and monitor wildlife impacts. The Commission also finds that siting the project in the Goldfinch ASP, which Wheatland County has zoned to allow for heavy and mixed industrial development, to be consistent with land use planning principles.

104. The Commission has determined that subject to the conditions outlined in this decision, the approval of the power project is in the public interest, notwithstanding the issues raised by PSK concerning the effects the power project may have on its interests in mines and minerals

underneath the project lands. The Commission disagrees with PSK that the Commission is somehow jurisdictionally precluded from approving the power project because such approval would amount to a regulatory taking, for which the Commission has no jurisdiction to compensate PSK. The Commission is not persuaded by this argument, nor by the distinguishable cases referred to by PSK to support it.<sup>85</sup> Indeed, the approval of a power project is squarely within the Commission's jurisdiction.<sup>86</sup>

105. The Commission strongly encourages Nova Solar and PSK to negotiate a resolution to their disagreements at their earliest convenience.

106. The Commission approves Nova Solar's applications for the power plant and substation.

107. The Commission notes that Nova Solar's project design has not been finalized. Nova Solar confirmed that once final selection of the project equipment is complete, it would submit a final project update to the Commission if the final project equipment and design are within the allowances for solar power plants specified in Rule 007. If the final project equipment and design are not within the Rule 007 allowances, Nova Solar will submit to the Commission an amendment application to obtain an updated approval for the final project design.<sup>87</sup> Consequently, the Commission imposes the following condition of approval.

- f. Once Nova Solar G.P. Inc. has finalized its equipment selection for the project, it must file a final project update to the Commission to confirm that the project has stayed within the final project update allowances for solar power plants specified in Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines*. The final project update must be filed at least 90 days prior to the start of construction.

108. In addition, the Commission is satisfied that Nova Solar disclosed the potential addition of an energy storage facility in its project-specific information package to stakeholders.<sup>88</sup> Nova Solar is required to seek approval if it decides to pursue development of an energy storage facility and would be required to conduct a PIP for the energy storage facility.

## 5 Transmission line connection applications

109. Nova Solar applied to construct and operate the 240-kV Transmission Line 927AL. AltaLink requested approval to connect the proposed Transmission Line 927AL to the existing Transmission Line 927L and to install one new telecommunications tower in the proposed Nova 1005S Substation.

110. The Commission finds that it is not in the public interest to approve the transmission line application from Nova Solar as filed, and therefore denies the Nova Solar and AltaLink transmission line interconnection applications.

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<sup>85</sup> Exhibit 27589-X0259, Written Evidence of PrairieSky (new unredacted version), PDF page 21, referencing *Annapolis Group Inc v Halifax Regional Municipality*, 2022 SCC 36 and *Canadian Pacific Railway v Vancouver (City)*, 2006 SCC 5.

<sup>86</sup> Alberta Utilities Commission Act, Section 17; Hydro and Electric Energy Act, sections 11 and 19.

<sup>87</sup> Exhibit 27589-X0027.01, Nova Solar AUC IR Responses 2022SEP09, PDF page 16.

<sup>88</sup> Transcript, Volume 2, page 53, lines 12-14.

111. Nova Solar identified one preferred route (north) and one alternate route (south) for the proposed transmission line. Nova Solar claimed that the preferred route has the highest stakeholder support and the lowest residential impact, and falls within the Goldfinch ASP. FCL, and the OKL and Janzen groups expressed concerns related to the proposed routes. These included transmission line routing, adequacy of consultation, safety issues, residential impacts, and electromagnetic fields (EMF) associated with the proposed transmission line.

- FCL opposed the preferred route and supported the alternate route.
- OKL Group opposed both routes, but requested the Commission approve the preferred route if the Commission decides to approve the connection project.
- Janzen Group opposed both routes.

112. Figure 3 shows Nova Solar's proposed preferred and alternate routes. The red and green lines show the preferred and alternate routes, respectively. The pink lines show two segments that are common to both preferred and alternate routes.

**Figure 3. Preferred and alternate routes**



113. Nova Solar submitted that the preferred route has two key benefits compared to the alternate route. Firstly, most of the preferred route is located on pre-disturbed land that is located along the north side of Township Road 221A. Secondly, the preferred route runs parallel to existing transmission lines for approximately 3.4 kilometres (i.e., almost half of the total length), whereas the alternate route only runs parallel to existing transmission lines for a distance of

830 metres.<sup>89</sup> Furthermore, unlike the alternate route, Nova Solar indicated that the preferred route does not pass by any residential areas. Table 2 shows Nova Solar’s comparison of the preferred and alternate routes.

**Table 2. Nova Solar’s comparison of preferred and alternate routes for Transmission Line 927AL**

Factor	Preferred route	Alternate route
Length <sup>90</sup>	8.06 kilometres	8.02 kilometres
Nearest residence (to proposed ROW boundary) <sup>91</sup>	130 metres	30 metres
Number of residences within 800 metres <sup>92</sup>	3	4
Wetlands <sup>93</sup>	11 (0.64 ha)	8 (0.54 ha)
Native grassland <sup>94</sup>	Not expected to temporarily or permanently disturb native grassland.	Expected to temporarily disturb 0.6 ha and permanently disturb less than 0.1 ha.
Cultivated land crossed <sup>95</sup>	9.3 ha	12.16 ha
Number of active pipelines crossed <sup>96</sup>	4	4
Conflict with existing distribution facility <sup>97</sup>	No conflict.	Conflicts with a distribution line.

114. The following subsections discuss how the Commission assessed whether Nova Solar’s routing methodology was acceptable, different impacts from the preferred and alternate routes, and if there may be more suitable routes to connect the Nova Solar Power Plant to the Alberta Interconnected Electric System. These subsections also provide the Commission’s findings on each issue.

### 5.1 Nova Solar’s routing methodology

115. In a facility application, the Commission needs to understand what siting processes and criteria were used to select the proposed locations of electric facilities. The main objective of a siting methodology is to identify locations that have the lowest impacts. Siting by an applicant should allow for ongoing refinements and improvements to line routing as new information is received throughout the siting process and PIP. The applicant is required to assess and document a proposed facility’s social, environmental, and economic impacts, take steps to solve or reduce those impacts, and justify the rationale for the route selection decisions that were made. The Commission considers route selection principles accepted in previous decisions, although not

<sup>89</sup> Exhibit 27589-X0435, Nova Solar Written Argument (CONFIDENTIAL) Redacted, PDF page 21.

<sup>90</sup> Exhibit 27589-X0106, Appendix D - Siting Report, PDF page 13.

<sup>91</sup> Exhibit 27589-X0069, RES Transmission Line Facility Application, PDF page 9.

<sup>92</sup> Exhibit 27589-X0106, Appendix D - Siting Report, PDF page 13.

<sup>93</sup> Exhibit 27589-X0106, Appendix D - Siting Report, PDF page 13.

<sup>94</sup> Exhibit 27589-X0101, Appendix G - Environmental\_Evaluation\_Rev0, PDF page 24.

<sup>95</sup> Exhibit 27589-X0106, Appendix D - Siting Report, PDF page 13.

<sup>96</sup> Exhibit 27589-X0106, Appendix D - Siting Report, PDF page 13.

<sup>97</sup> Exhibit 27589-X0069, RES Transmission Line Facility Application, PDF page 15.

exhaustive, include: agricultural impacts, residential impacts, visual impacts, electrical considerations, technical considerations, special constraints, environmental impacts and cost.<sup>98</sup>

116. In Nova Solar's siting report prepared by Hardline Engineering Ltd., siting criteria were considered to identify preliminary corridors within the study areas as follows:<sup>99</sup>

- number of occupied residences within 150 metres
- number of occupied residences within 800 metres
- oil and gas facilities
- environmentally significant areas (ESAs)
- areas of cross-cultivation
- lands assigned historic resource value (HRV) of 5
- wetlands
- number of distribution crossings

117. Nova Solar's siting process identified a study area, comprised of route corridors (section and quarter section lines, property boundaries, and developed/undeveloped road allowance boundaries), located between AltaLink's existing 927L transmission line and Nova Solar's power plant boundary. The study area includes the Goldfinch ASP,<sup>100</sup> which is compatible with electric facility infrastructure.

118. Nova Solar provided an overview of its route selection process and explained how it identified preliminary corridors within the study area based on the evaluation of its siting criteria on route corridors. As shown in Figure 4, the preliminary corridor selection process resulted in several route corridors with connectivity between Transmission Line 927L and Nova Solar's power plant.<sup>101</sup>

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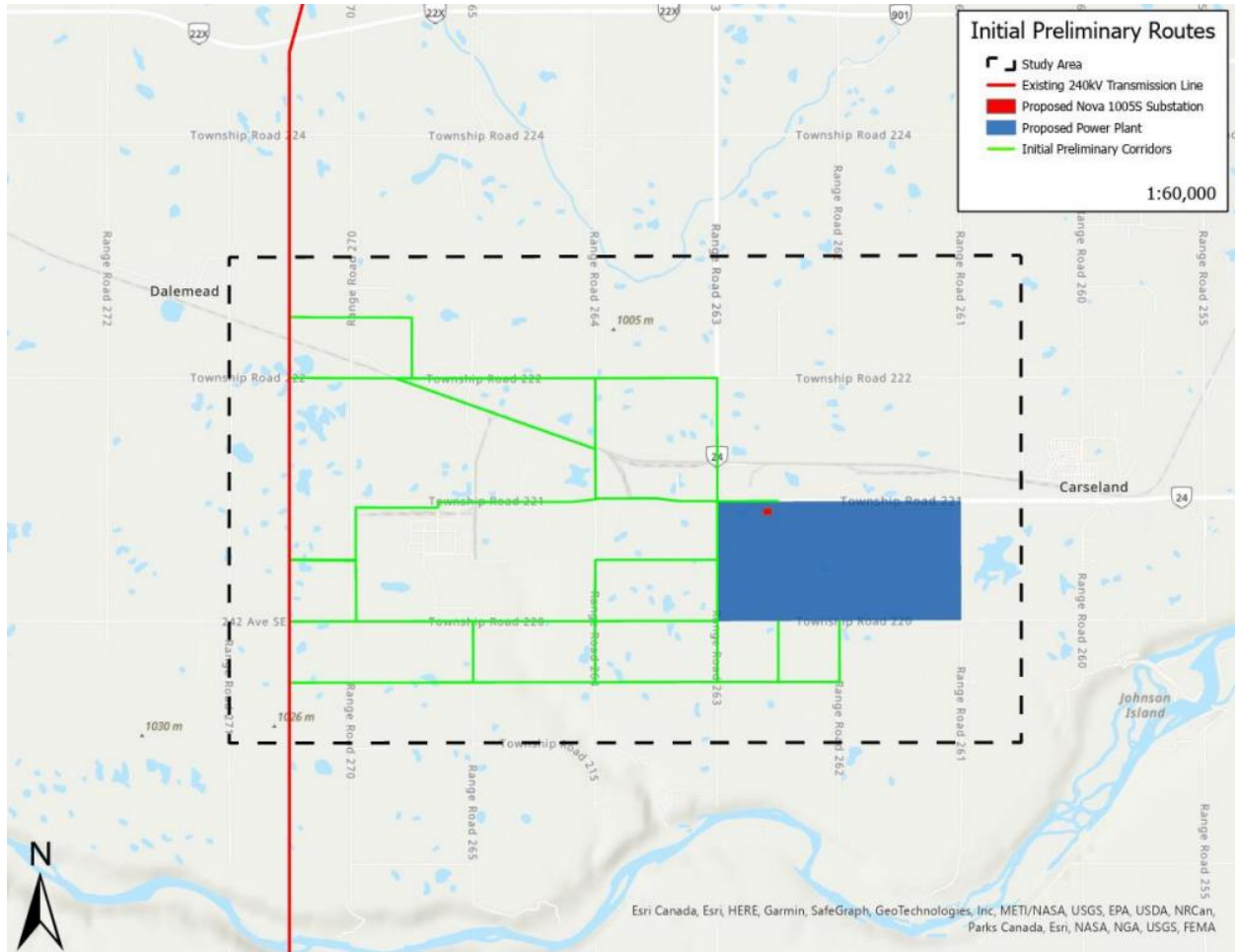
<sup>98</sup> Decision 2011-436: AltaLink Management Ltd. and EPCOR Distribution & Transmission Inc. – Heartland Transmission Project, November 1, 2011, paragraph 368; Decision 2012-327: AltaLink Management Ltd. Western Alberta Transmission Line Project, December 6, 2012, paragraph 672; Decision 21030-D02-2017: Alberta PowerLine General Partner Ltd. – Fort McMurray West 500-Kilovolt Transmission Project, February 10, 2017, paragraph 390; Decision 23943-D01-2020: EPCOR Distribution & Transmission Inc. – West Edmonton Transmission Upgrade Project, March 12, 2020, paragraph 424.

<sup>99</sup> Exhibit 27589-X0106, Appendix D - Siting Report, PDF page 9.

<sup>100</sup> Exhibit 27589-X0435, Nova Solar Written Argument (CONFIDENTIAL) Redacted, PDF page 5.

<sup>101</sup> Exhibit 27589-X0106, Appendix D - Siting Report, PDF page 10.

Figure 4. Nova Solar’s initial preliminary route corridors



119. Assessment of these route corridors resulted in most being removed from the study area and Nova Solar only selected two preliminary routes, a north alignment and a south alignment, as shown in Figure 5 below, based on preliminary route corridors with favourable metrics.<sup>102</sup>

<sup>102</sup> Exhibit 27589-X0106, Appendix D - Siting Report, PDF page 11.

**Figure 5. Preliminary routes**



120. However, Nova Solar did not explain how the criteria were applied to the route corridors or the specific criteria (e.g., proximity to residences, built-up areas, oil and gas facilities and airstrips, length crossed, area intersected) used to remove route corridors from consideration. Nova Solar did not document the rationale for removing preliminary route corridors or provide a quantitative comparison of the social, economic and environmental impacts to understand the overall impacts of the preliminary route corridors. It is unclear to the Commission what metrics were used to assess the remaining preliminary route corridors and how the two selected preliminary routes were identified as low impact.

121. It appears to the Commission that there may be other viable routes, such as one north of the preferred route, or variations of a south alignment that avoids being as close to residences as the alternate route is. However, the Commission lacks information from Nova Solar's evidence to draw conclusion on the viability of other routes and how they would compare to the preferred and alternate routes.

122. Further, the siting process did not consider the reintroduction of route corridors that were previously removed. Although siting criteria are used to guide the selection of suitable route corridors, a siting methodology must consider that siting criteria may be relaxed to re-introduce corridors that were previously removed from consideration. For example, in some circumstances, reconsideration of a previously removed route corridor may occur when mitigation measures are put in place to ensure that a routing constraint, such as spanning a wetland feature, will no longer be a concern.

123. Nova Solar stated it refined the two preliminary routes based on information collected from stakeholders, environmental surveys, engineering, field verification, and construction planning, which resulted in three additional routes being identified and assessed. However, Nova Solar did not illustrate these additional routes in its siting report for the Commission to consider and understand overall impacts, nor was it clear if the additional routes were identified

by Nova Solar or were suggested by a stakeholder. Further, the siting report did not include a comparative metrics analysis to assess the two preliminary routes with the three additional routes to understand overall impacts. Nova Solar stated that two of the three additional routes were removed from consideration due to stakeholder opposition, but it is unclear what the stakeholder concerns were.

124. Nova Solar selected the two preliminary routes and redesignated them as the preferred and alternate route, respectively. Both routes generally follow existing linear disturbances and are located within road allowances or on the edge of private property boundaries. While the Commission appreciates that Nova Solar attempted to compare the route impacts, it is unclear to the Commission the significance of the metric factors assessed (i.e., cultivated lands (ha), native prairie (ha), and wetlands (ha)). Further, the metrics analyzed do not correlate back to the siting criteria initially used to identify low-impact route corridors, which would have been helpful to the Commission in assessing the overall impacts of the preferred and alternate routes.

125. Overall, the Commission's view is that the siting criteria used by Nova Solar were vague, it was difficult to interpret how those criteria were to be applied to determine potential route corridors, and Nova Solar did not explain the significance of the criteria in its removal of route corridors, such as oil and gas facilities, ESAs, areas of cross-cultivation, lands assigned HRV of 5, and wetlands.

## **5.2 Issues related to the preferred route**

126. Nova Solar's preferred route starts from Nova 1005S Substation, travels west parallel to Highway 24 and then crosses Range Road 263 to the north of Township Road 221A. Then it travels past OKL's North Property and FCL's Carseland Terminal. After that, it crosses Range Road 264 to the south side of Township Road 221. Then it heads west and south, passing by industrial facilities including a chemical fertilizer plant, explosives plant and a railway, before joining AltaLink's existing Transmission Line 927L.

127. FCL objected to the preferred route due to safety concerns and the adequacy of Nova Solar's consultation.

### **5.2.1 Safety issues on preferred route**

128. FCL's safety concerns stem from the proximity of Nova Solar's preferred route to FCL's facility. FCL's facility is located north of the preferred route's structures 53, 54, 55 and 56. FCL estimated that Structure 53 (an approximately 82-114.8-foot-tall structure<sup>103</sup>) would be only 50 feet from one of FCL's fuel loading racks and the preferred route would be approximately 12 feet from the surrounding fence.<sup>104</sup> Figure 6 shows FCL's facility and nearby portions of the preferred route, including the anticipated structures on that route.

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<sup>103</sup> Exhibit 27589-X0319, Attachment 1 - Hardline Engineering Reply Evidence and Author CV, PDF page 31.

<sup>104</sup> Exhibit 27589-X0178, 2023 01 23 FCL Evidence Submissions, PDF pages 8-9.



Figure 6. FCL's facility and nearby portion of the preferred route



129. FCL stated that the Carseland Terminal is a hazardous location and the proximity of the proposed 240-kV structures and conductors is a significant issue for FCL. FCL retained Jose Gamez of Marsh Advisory<sup>105</sup> to provide an independent risk identification study (the Marsh Report). As previously noted, Nova retained Hardline Engineering Ltd. to prepare its siting report,<sup>106</sup> and James Howland of Hardline Engineering also prepared rebuttal evidence<sup>107</sup> to address siting-related concerns raised by the interveners in their evidence.

130. FCL highlighted a major concern regarding the potential risks of fire exposure due to the presence of a high-voltage transmission line. The Marsh Report noted that the high-voltage, 240 kV, of the proposed power line could result in local discharge events such as corona discharge, which could ignite a vapour cloud if it passes over the power line. This would create a new ignition source, making it impossible for the site to control the situation. Factors such as fumes, power faults, weather events, and other elements can exacerbate this risk, further adding to the existing situation. Hence, FCL submitted that it is vital to take necessary measures to mitigate the risks associated with the high-voltage transmission line.

131. J. Howland acknowledged that weather events, such as a tornado, happen periodically, but explained that designing transmission line structures to withstand the wind speed and debris impact associated with a tornado would be uneconomical for ratepayers.<sup>108</sup> J. Howland stated that corona discharge does not have sufficient energy to act as an ignition source for fuel vapour and the probability of such an event is extremely low.<sup>109</sup> J. Howland also confirmed that the preferred route would be compliant with *Alberta Electrical Utility Code*, Canadian Standards Association

<sup>105</sup> An independent practice within Marsh Canada Limited.

<sup>106</sup> Exhibit 27589-X0106, Appendix D - Siting Report.

<sup>107</sup> Exhibit 27589-X0319, Attachment 1 – Hardline Engineering Reply Evidence and Author CV.

<sup>108</sup> Transcript, Volume 4, page 403, lines 18-25, and page 404, lines 1-5

<sup>109</sup> Transcript, Volume 3, page 265, lines 2-20.

(CSA) C22.3 and the Alberta Electric System Operator Rule 502.2, *Bulk Transmission Line Technical Requirements*.

132. In addition, FCL expressed safety concerns about FCL's personnel and activities related to groundwater monitoring, fencing repairs and cleaning tasks. FCL has a number of groundwater monitoring wells in front of its Carseland Terminal property. The Marsh Report identified four groundwater monitoring wells that are located within 10 metres of Nova Solar's proposed pole locations.<sup>110</sup> These wells are frequently accessed by FCL vendors to perform sampling and analysis and the construction working area might present a risk to damage those or impact the routine monitoring activities. FCL indicated that its concerns are not related to the groundwater monitoring wells that are made of PVC pipe, rather its concerns are related to the instruments and equipment that are used for the well-monitoring work.<sup>111</sup> J. Howland stated that since access to FCL's groundwater monitoring wells is gained by using a half-ton four-wheel drive truck and no communication systems are associated with the groundwater monitoring wells, there would be no impact or added safety risks to the groundwater monitoring wells or the required maintenance activities described by FCL.<sup>112</sup> Despite this, FCL still has concerns related to the AC induction-related impact on trucks and equipment that would be used during its well-monitoring activities.

133. The Marsh Report referred to an information request response<sup>113</sup> where Nova Solar confirmed that the potential for induction interference exists and detailed studies were not available to confirm whether or not such interference exists before detailed design activities are undertaken. Nova Solar stated that it completed a preliminary AC mitigation assessment of the preferred and alternate routes, which did not identify FCL-owned pipelines or railways as potentially requiring AC mitigation. Nova Solar also referred to FCL's safety manual<sup>114</sup> and FCL's testimony that FCL's facilities are grounded and bonded according to the code requirements.<sup>115</sup>

134. FCL stated that truck loading and unloading activities at the Carseland Terminal operate round the clock. Therefore, truck-related activities are unavoidable during the construction period, which would include activities such as foundation construction, setting, and stringing. These activities have the potential to introduce vibrations that could disrupt the process of truck loading and unloading from the racks.<sup>116</sup> Nova Solar committed to working with FCL through construction to ensure that the activities required to excavate holes, erect structures and string conductors have minimal impacts.

135. FCL's concerns about possible failure of spacer dampers on the transmission line were addressed by the confirmation by Hardline Engineering that the transmission line will not include any spacer dampers as it will have a single conductor arrangement per phase.

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<sup>110</sup> Exhibit 27589-X0189, Appendix D FCL Carseland Terminal\_AUC 27589\_Marsh Report, PDF page 9.

<sup>111</sup> Transcript, Volume 3, page 257, lines 1-5.

<sup>112</sup> Exhibit 27589-X0319, Attachment 1 - Hardline Engineering Reply Evidence and Author CV, PDF pages 4, 5.

<sup>113</sup> Exhibit 27589-X0133, Response to AUC information request Nova Solar-AUC-2022DEC05-001 to 011, PDF page 17.

<sup>114</sup> Exhibit 27589-X0270, Attachment FCL-Nova Solar-2023FEB06-001(a3) Carseland Terminal Safety Manual Sept 2021 Final, PDF page 112.

<sup>115</sup> Transcript, Volume 5, page 558, lines 20-24.

<sup>116</sup> Exhibit 27589-X0189, Appendix D FCL Carseland Terminal\_AUC 27589\_Marsh Report, PDF page 11.

136. Nova Solar stated that once final alignment and detailed engineering are complete, it will co-ordinate with a qualified transmission line constructor to address specific hazards associated with the transmission line through an emergency response plan. This process will include consultation with FCL to identify site-specific hazards for inclusion in the emergency response plan.

137. In the Commission's view, public safety is of utmost importance when siting any high-voltage transmission line and the Commission places significant weight on ensuring public safety while considering such a transmission line. In this particular scenario, the public safety risk associated with the proposed power line is significant due to its proximity to a fuel terminal. The Commission acknowledges that J. Howland and Nova Solar committed to building the transmission line in the preferred route in compliance with the appropriate codes and standards. However, given the hazardous nature of continuous loading-unloading activities, the Commission is concerned about the proposed distance between the preferred route and FCL's facility, particularly if there are other feasible route alternatives that would avoid such a potential hazard.

### **5.2.2 Did Nova Solar properly explore route variant(s) for the preferred route?**

138. FCL requested Nova Solar to explore placing the preferred route on the south side of Township Road 221A rather than being situated on the north side of Township Road 221A along the edge of FCL's Carseland Terminal property. Hardline Engineering stated that it explored route variants for alignments on both the north and south side of Township Road 221A adjacent to FCL's Carseland Terminal. Nova Solar stated that a route variant along the south side of the Township Road 221A may not be possible due to the following:<sup>117</sup>

- There is a distribution line on the south side of Township Road 221A that would need to be relocated or the new transmission line would need to be located south of it, which would be an additional expense and which could have a negative impact on the affected land by making agricultural uses and future development more challenging. If the new alignment required relocating the distribution line, the owner of the distribution facility may need to relocate their line to the north side of the road, adjacent to or on FCL's property.
- The Janzen property on the south side of Township Road 221A is currently being developed into a truck stop, which makes it more difficult to route the transmission line on the south side of the road.
- There are two wetlands classified as Class IV on the south side of Township Road 221A. If the transmission line alignment were 20 metres south of the distribution line, it would probably have a greater impact on the wetlands compared to the proposed route on the north side of the road.

139. In an attempt to address FCL's concerns, Hardline Engineering adjusted the alignment two metres south so that the centreline of the originally proposed alignment moves from FCL's property to the road allowance. FCL stated that this proposed adjustment would not address its safety-related concerns.

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<sup>117</sup> Exhibit 27589-X0290, Letter to AUC re Nova Solar IR Responses, PDF pages 9-10.

140. The Commission finds that the risk assessment of the preferred route and the associated variant is flawed and inadequate. Nova Solar stated that locating the preferred route along the south side of Township Road 221A would be challenging because of the ongoing construction of the Janzen truck stop,<sup>118</sup> but did not provide any reasonable explanation why proximity to the Janzen truck stop would have a higher risk assessment compared to the proximity to FCL's facility. Further, the Commission is not satisfied with Nova Solar's rationale about why other variants, including moving the transmission line to the south of Township Road 221A for 800 metres, were not sufficiently explored during the siting of the preferred route. The Commission considers that it is common practice for distribution lines to be relocated when proposing a new transmission line. Nova Solar itself proposed to relocate a distribution line to accommodate the proposed alternate route. Nova Solar failed to properly compare the routing options based on a thorough risk assessment.

### 5.2.3 Consultation on preferred route

141. FCL submitted that Nova Solar's consultation on the preferred route was inadequate. FCL indicated that minimal consultation occurred with FCL between July 5, 2022, and October 31, 2022, when the transmission line application was filed. FCL emphasized that prior to filing its application on October 31, 2022, Nova Solar had very little personal contact with FCL.<sup>119</sup>

142. In FCL's submission, Nova Solar misconstrued FCL's position when Nova Solar stated (in its email dated December 13, 2022) that given earlier discussions with FCL, it was of the understanding that siting infrastructure on FCL land was acceptable. FCL clarified that it never advised Nova Solar that siting transmission line infrastructure on FCL land was acceptable. Instead, FCL submitted that it clearly advised Nova Solar that it had concerns with introducing additional hazards to an already hazardous area.<sup>120</sup>

143. FCL explained that it was not given sufficient time to review the project design and discuss mitigation. FCL submitted that it did not receive the coordinates for the structure locations of the proposed transmission line until December 13, 2022, which was well after this proceeding started. FCL questioned how mitigation could be discussed if there was no detailed engineering design available to review, including exact location for the structures.<sup>121</sup> Robin Larsen, the terminal manager of the Carseland Terminal, submitted that he was not aware of the proposed transmission line until late June 2022 and he believed "contacting the correct landowner at the very beginning would have been appropriate." R. Larsen further explained that early consultation would have given FCL time to understand what was being proposed.<sup>122</sup>

144. The Commission notes that between February 2022 and June 2022, Nova Solar's communication logs with FCL indicated that no attempts were made by Nova Solar to reach out to FCL after the initial project information mail out in February 2022.

145. Nova Solar argued that FCL had a reasonable opportunity to engage with Nova Solar. Nova Solar submitted that R. Larsen and his FCL colleagues had all the necessary information

<sup>118</sup> Transcript, Volume 2, page 70, lines 9-25, and page 71, lines 1-7; and Exhibit 27589-X0198 Report of Gettel Appraisals re Real Estate Impact, Jan 18, 2023, PDF page 17.

<sup>119</sup> Exhibit 27589-X0178; 2023 01 23 FCL Evidence Submissions, PDF pages 14-15.

<sup>120</sup> Exhibit 27589-X0160, 27589\_X0127 - FCL Communication Log, PDF page 2.

<sup>121</sup> Exhibit 27589-X0442, 2023 04 14 FCL Final Argument, PDF page 15.

<sup>122</sup> Transcript, Volume 5, page 580, lines 10-16.

available during the consultation to consider the transmission line and its potential impacts and to communicate concerns.<sup>123</sup> In particular, Nova Solar pointed out that the project-specific information package it provided to FCL in February 2022 for the transmission line included information on routing selection and details, proposed transmission line structures and it showed a proposed alignment along the boundary of the Carseland Terminal.<sup>124</sup>

146. Nova Solar explained that its representatives were responsive and addressed all questions and requests raised by FCL before and after Nova Solar filed the transmission line application with the Commission.<sup>125</sup> In addition, Nova Solar committed to continue its engagement efforts to address stakeholder concerns wherever practicable.<sup>126</sup>

147. With respect to FCL's concern about not having sufficient time to review the project, Nova Solar submitted that it is not clear that earlier discussions would have made a material difference, as it appears there may have been delays in communicating the matter internally within FCL.<sup>127</sup> In addition, Nova Solar submitted that FCL did not present a qualified professional (e.g., an electrical engineer) to discuss concerns raised by FCL, which are technical in nature. Nova Solar pointed out that the FCL witnesses at the hearing did not have engineering training or experience with respect to electricity, and could not explain terms and requirements in the Carseland Terminal Safety Manual.<sup>128</sup>

148. Nova Solar explained that consultation was further hampered by FCL's refusal to consider potential solutions to mitigate potential impacts from the transmission line. Nova Solar submitted that even though there are technical mitigation measures that could address FCL's concerns, FCL only considered options that would eliminate/address FCL's concerns (e.g., routing the transmission line elsewhere), instead of mitigating impacts.<sup>129</sup> Nova Solar opined that FCL's lack of willingness to consider mitigation was contrary to the expectation that stakeholders engage in a two-way dialogue during consultation.<sup>130</sup>

149. The Commission understands and accepts that the detailed engineering and precise structure locations may not be available at the early stage of consultation. However, given the hazardous nature of FCL's facility and proximity of the proposed transmission line to that facility, a better effort should have been made to consult with FCL, mitigate FCL's concern and incorporate or fully consider FCL's routing suggestion (to site the transmission line across the road from the Carseland Terminal) while developing the preferred route.

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<sup>123</sup> Exhibit 27589-X0435, Nova Solar Written Argument (CONFIDENTIAL) Redacted, PDF pages 9-10.

<sup>124</sup> Exhibit 27589-X0104, Appendix J - PIP Report, PDF pages 25-26 and 29.

<sup>125</sup> Exhibit 27589-X0435, Nova Solar Written Argument (CONFIDENTIAL) Redacted, PDF page 9; and Exhibit 27589-X0160, 27589\_X0127 - FCL Communication Log.

<sup>126</sup> Exhibit 27589-X0433.01, Nova Solar Undertaking Response to AUC re List of Commitments, PDF 18.

<sup>127</sup> Exhibit 27589-X0435, Nova Solar Written Argument (CONFIDENTIAL) Redacted, PDF page 10.

<sup>128</sup> Transcript, Volume 5, page 547, lines 5-8, and page 557, lines 4-19.

<sup>129</sup> Exhibit 27589-X0265, 2023-02-16 FCL's Responses to AUC IRs (001-003), PDF page 5;

Exhibit 27589-X0267, 2023-02-16 FCL's Responses to Nova Solar IRs (001-006), PDF page 3.

<sup>130</sup> Exhibit 27589-X0435, Nova Solar Written Argument (CONFIDENTIAL) Redacted, PDF pages 10-11.

### 5.3 Issues related to the alternate route

#### 5.3.1 Residential impacts from the alternate route

150. Members of the OKL and Janzen groups own properties and residences that are located within 50 metres of the alternate route. In particular, M. Janzen's residence is located within 30 metres of the alternate route's right-of-way. They expressed concerns related to visual impact and impacts on health, including mental stress.

151. Lone Star Cattle Co. Ltd. owns a house and a business approximately 50 metres from the alternate route. Ronnie and Carol Ostrom are the principals of Lone Star Cattle Co. Ltd., and reside in the house. The Ostroms expressed concerns regarding the health effects of exposure to EMF associated with the alternate route.

152. The Commission has previously held that it cannot give weight to opinion evidence about the health effects of EMF from lay witnesses given the complexity of the topic. The Commission continues to place significant weight on the World Health Organization's conclusion that, based on available research data, exposure to EMF is unlikely to constitute a serious health hazard, and also on Health Canada's conclusion that exposure to EMF from transmission lines is not a demonstrated cause of any long-term adverse effect to human or animal health. Having regard to this, and the evidence of the very low EMF levels for this project,<sup>131</sup> the Commission is satisfied that EMF from the transmission line will not result in any adverse health effects.

153. For the Janzen property, the transmission line would be visible on the east and south sides of the property. The alternate route would have two dead-end monopoles with guy wires located on the east side of the Janzen property.<sup>132</sup> In addition, on the south side of the Janzen property, a number of trees fall within the alternate route's proposed right-of-way and may need to be trimmed or removed. To mitigate the visual impact resulting from the alternate route, Nova Solar committed to commercially reasonable screening.<sup>133</sup>

154. The Commission is mindful that in rural settings, high-voltage transmission lines are rarely located this close (50 metres or less) to residences due to potential impacts. Given the close proximity of the alternate route to these two residences, the Commission questions its suitability and believes that there may be better routing options for a transmission line to connect the Nova Solar Power Plant to the Alberta Interconnected Electric System.

#### 5.3.2 Consultation on the alternate route

155. OKL Group asserted that there was complete disregard for any meaningful consultation.<sup>134</sup> OKL Group stated that Nova Solar's consultation with OKL members was limited to three phone calls and one on-site meeting over the entire consultation period, between October 2021 and September 2022. OKL Group believes the consultation was inadequate, when considering a project with a 30- to 50-year lifespan.<sup>135</sup>

156. Nova Solar disagreed with OKL Group's statements about lack of consultation and submitted that it provided detailed information of its consultation history with OKL Group with

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<sup>131</sup> Exhibit 27589-X0319, Attachment 1 - Hardline Engineering Reply Evidence and Author CV, PDF page 10.

<sup>132</sup> Exhibit 27589-X0106, Appendix D - Siting Report, PDF pages 30 and 59.

<sup>133</sup> Exhibit 27589-X0433.01, Nova Solar Undertaking Response to AUC re List of Commitments, PDF page 3.

<sup>134</sup> Exhibit 27589-X0206, Evidence Ostrom, Keer, and Lone Star Cattle Co. Ltd., PDF page 12.

<sup>135</sup> Exhibit 27589-X0436, Final Written Argument of the OKL Group dated April 14, 2023, PDF page 6.

respect to the OKL Group's properties.<sup>136</sup> Nova Solar contended that it meaningfully consulted with OKL Group regarding its concerns, and continues to do so in good faith. Nova Solar committed to engaging with OKL Group throughout the design process of the transmission line to adjust structure locations to be minimally impactful to the property where possible.<sup>137</sup>

157. Furthermore, both R. Ostrom and M. Janzen stated that Nova Solar advised them that the alternate route had been "taken off the table."<sup>138</sup> M. Janzen clarified that once he received this information, there were no further discussions regarding the infrastructure associated with that route.<sup>139</sup>

158. Nova Solar asserted that any misunderstanding with respect to R. Ostrom's and M. Janzen's understanding about the alternate route being "off the table" might have resulted from different terms used during consultation, which included "north route" (now the preferred route) and "south route" (now the alternate route).<sup>140</sup> Nova Solar emphasized that the engagement records with M. Janzen and R. Ostrom show that both landowners were consulted on both route options.<sup>141</sup>

159. Nova Solar submitted that neither the OKL Group nor Janzen Group provided any written material supporting their statements that a Nova Solar representative told them the alternate route was "off the table;" instead, these statements were based on the recollections of M. Janzen and R. Ostrom, which Nova Solar believed lacked specificity and may be unreliable and suggested the Commission give little or no weight to the statements.<sup>142</sup> M. Janzen indicated that while his and R. Ostrom's statements about the alternate route being "off the table" were based on their recollections, both individuals provided their recollections independently as sworn testimony under oath in response to questions during the proceeding.<sup>143</sup>

160. The Commission is troubled by Nova Solar's consultation efforts on the alternate route. This was not an example of effective consultation, the most obvious example being the apparent uncertainty left among two neighbouring residents regarding the status of the alternate route (i.e., whether that route would be proposed in Nova Solar's transmission connection application). A more diligent effort should have been undertaken to engage in consultation with these individuals.

#### **5.4 Environmental aspects of proposed routes**

161. FCL retained Cliff Wallis to provide expert evidence on the environmental impacts of the project. C. Wallis's professional opinion was that the alternate route was preferable to the preferred route from an environmental perspective. A summary of routes was provided to support this determination, which compared the impacts of each route on environmental

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<sup>136</sup> Exhibit 27589-X0027.01, Nova Solar AUC IR Responses 2022SEP09, PDF pages 14, and 19-21.

<sup>137</sup> Exhibit 27589-X0318, Written Reply Evidence of Nova Solar, PDF page 14.

<sup>138</sup> Exhibit 27589-X0436, Final Written Argument of the OKL Group dated April 14, 2023, PDF page 7. Transcript, Volume 3, page 337, lines 22-25. Transcript, Volume 4, page 440, lines 5- 22.

<sup>139</sup> Exhibit 27589-X0443, Final Argument on behalf of Janzen Group, Apr 14, 2023, PDF pages 7-8. Transcript, Volume 4, page 504, lines 10-12.

<sup>140</sup> Transcript, Volume 4, page 366, lines 19-25, and page 366, lines 1-4.

<sup>141</sup> Exhibit 27589-X0435, Nova Solar Written Argument (CONFIDENTIAL) Redacted, PDF pages 11-12.

<sup>142</sup> Exhibit 27589-X0435, Nova Solar Written Argument (CONFIDENTIAL) Redacted, PDF page 11.

<sup>143</sup> Exhibit 27589-X0443, Final Argument on behalf of Janzen Group, Apr 14, 2023, PDF page 7.

features.<sup>144</sup> WSP provided a response to concerns on which route was preferable questioning the metrics and assumptions used in C. Wallis's determinations.<sup>145</sup> Both parties were in agreement that the routes were sited along existing linear disturbances and therefore had low potential for significant impacts to the environment.

162. The Commission is satisfied that both routes are acceptable from an environmental perspective assuming the mitigations outlined in the environmental protection plan are adhered to.

## 5.5 Conclusion on connection applications

163. The Commission is not satisfied that Nova Solar's proposed connection project is in the public interest, having regard to its social, economic, and environmental effects, and taking into consideration the following components of the application:

- Routing methodology. The siting criteria used by Nova Solar were vague, it was difficult to interpret how those criteria were to be applied to determine potential route corridors, and Nova Solar did not explain the significance of the criteria in its removal of route corridors, such as oil and gas facilities, ESAs, areas of cross-cultivation, lands assigned HRV of 5, and wetlands. Other route corridors apart from the two proposed by Nova Solar needed to be, but were not, assessed more fully as potential route alternatives/variants.
- Safety on preferred route. The Commission is not satisfied that FCL's safety-related concerns were adequately addressed by Nova Solar, and the Commission is reluctant to approve a route in very close proximity to a fuel terminal, particularly when other routing options may be available. It may well be that once Nova Solar further considers additional routing options, the current proposed route (or a variation of it) may still be the route Nova Solar proposes to connect its power plant to the transmission system, but until more siting work has been done and explanations provided with respect to that work, the Commission is not persuaded that the public interest would be served by approving the preferred route with its inherent safety concerns.
- Residential impacts on alternative route. The Commission questions the suitability of the alternative route given the high-voltage line's close proximity to residences within 50 metres, and in particular as close to 30 metres, of the route in a rural setting. This is contrary to best routing practices which have adhered in Alberta for several years.<sup>146</sup>

164. Nova Solar's connection applications are therefore denied.

165. AltaLink's applications are a smaller component of, and dependent upon, Nova Solar's transmission line application. Given the Commission's denial of Nova Solar's

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<sup>144</sup> Exhibit 27589-X0187, Appendix C-1 NovaSolarevidenceofCottonwoodfinalJanuary212023, PDF pages 10 and 11.

<sup>145</sup> Exhibit 27589-X0321, Attachment 2 - WSP Reply to FCL Cottonwood Report and Author CVs, PDF page 5.

<sup>146</sup> See for example AUC Decision 2013-369: Alberta Electric System Operator, AltaLink Management Ltd. and ENMAX Power Corporation – Foothills Area Transmission Development, October 7, 2013, where AltaLink used a distance of 150 metres from the centreline to determine whether a residence would qualify for a buyout in a rural setting.



transmission line application, the Commission has determined that AltaLink's applications should also be denied at this time.

166. Should Nova Solar decide to proceed with the power plant project, Nova Solar and AltaLink must reapply for the transmission facilities. The Commission expects that any such application will have re-evaluated the route selection process and will use a methodology that identifies and applies comprehensive routing criteria, includes an evaluation of any stakeholder-suggested alternative route locations, provides a timeline of siting decisions, and documents the rationale for its decision-making. Should Nova Solar ultimately re-apply for the preferred route or alternate route, the Commission expects a proper comparison to other possible route options would be provided, with a robust analysis on why the applied for route(s) are in the public interest.

## **6 Decision**

167. Pursuant to sections 11 and 19 of the *Hydro and Electric Energy Act*, the Commission approves Application 27589-A001 and grants Nova Solar G.P. Inc. the approval set out in Appendix 1 – Power Plant Approval 27589-D02-2023, to construct and operate the Nova Solar Power Plant.

168. Pursuant to sections 14, 15 and 19 of the *Hydro and Electric Energy Act*, the Commission approves Application 27589-A002 and grants Nova Solar G.P. Inc. the permit and licence set out in Appendix 2 – Permit and Licence 27589-D03-2023, to construct and operate the Nova 1005S Substation.

169. The appendixes will be distributed separately.

Dated on July 19, 2023.

### **Alberta Utilities Commission**

*(original signed by)*

Renée Marx  
Panel Chair

*(original signed by)*

Carolyn Dahl Rees  
Commission Chair

**Appendix A – Proceeding participants**

<b>Name of organization (abbreviation) Name of counsel or representative</b>
Nova Solar G.P. Inc. Martin Ignasiak Jessica Kennedy Peter Ciechanowski
AltaLink Management Ltd. Dean Barrett Karen McGlone Lindsey Hinthner
PrairieSky Royalty Ltd. Evan W. Dixon Bruna Kalinoski
Federated Co-Operatives Ltd. Richard Secord Ifeoma Okoye
Michael Janzen, RAM Cattle Feeders Ltd. and Route 24 Truck Stop Ltd. Michael Niven Sirisha Valupadas
Ostrom, Keer & Lone Star Cattle Co. Ltd. Michael Barbero
Wheatland County Stefan Kunz Sherry Baers
Nora Maidman Nora Maidman
Alberta Utilities Commission  Commission panel Renée Marx, Panel Chair Carolyn Dahl Rees, Commission Chair  Commission staff Andrew Culos (Commission counsel) Laura-Marie Berg (Commission counsel) Joan Yu Mohib Khan Glenn Harasym Hussain Shamji

**Appendix B – Oral hearing – registered appearances**

<b>Name of organization (abbreviation) Name of counsel or representative</b>	<b>Witnesses</b>
Nova Solar G.P. Inc. Martin Ignasiak Jessica Kennedy Peter Ciechanowski	James Howland Rebecca Crump Matt Whiteman Trevor Cuthbert Kristine Sare Richard Chisholm Glen Doll
AltaLink Management Ltd. Dean Barrett Karen McGlone Lindsey Hinthner	
PrairieSky Royalty Ltd. Evan W. Dixon Bruna Kalinoski Mel Blair	Michael Wasyliw Paul Starnino Maria Rajic Cameron Proctor Doug Ashton
Federated Co-Operatives Ltd. Richard Secord Ifeoma Okoye	Cliff Wallis Jose Gamez Tanya Hornung Robin Larsen
Michael Janzen, RAM Cattle Feeders Ltd. and Route 24 Truck Stop Ltd. Michael Niven Sirisha Valupadas	Terry Osko Brian Gettel Michael Janzen
Ostrom, Keer & Lone Star Cattle Co. Ltd. Michael Barbero	Ronnie Ostrom
Nora Maidman	Nora Maidman

## Appendix C – Summary of Commission conditions of approval in the decision

This section is intended to provide a summary of all conditions of approval specified in the decision for the convenience of readers. Conditions that require subsequent filings with the Commission will be tracked as directions in the AUC's eFiling System. In the event of any difference between the conditions in this section and those in the main body of the decision, the wording in the main body of the decision shall prevail.

The following are conditions of Decision 27589-D01-2023 that require subsequent filings with the Commission and will be included as conditions of Power Plant Approval 27589-D02-2023:

- a. Nova Solar G.P. Inc. shall submit an annual post-construction monitoring survey report to Alberta Environment and Protected Areas (AEPA) and the Commission no later than January 31 of the year following the mortality monitoring period, and on or before the same date every subsequent year for which AEPA requires surveys pursuant to subsection 3(3) of Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants* and Section 4.0 of the Post-Construction Survey Protocols for Wind and Solar Energy Projects.
- f. Once Nova Solar G.P. Inc. has finalized its equipment selection for the project, it must file a final project update to the Commission to confirm that the project has stayed within the final project update allowances for wind power plants specified in Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines*. The final project update must be filed at least 90 days prior to the start of construction.

The following are conditions of Decision 27589-D01-2023 that do not or may require subsequent filings with the Commission:

- b. Nova Solar G.P. Inc. shall seek input from Michael Janzen and Nora Maidman during the preparation and implementation of a landscaping program, with the goal of addressing these residents' concerns about visual impacts from the project.
- c. Nova Solar G.P. Inc. shall configure the project solar panels to use a resting angle greater than or equal to six degrees during backtracking periods to mitigate glare effects.
- d. The Commission requires Nova Solar G.P. Inc. to promptly address any complaint or concern from stakeholders regarding solar glare from the project. Nova Solar shall file a report with the Commission detailing any complaint or concern it receives regarding solar glare from the project during its first year of operation, as well as Nova Solar's response to that complaint or concern. Nova Solar shall file this report no later than 13 months after the project becomes operational.
- e. Nova Solar G.P. Inc. shall use an anti-reflective coating on the project solar panels.