EC2024-0641
Attachment 3

Detailed Analysis of Tax Incentive Options

Executive Summary

This report aims to provide insights into using non-residential incentives enabled by section 364.2 of the *Municipal Government Act* (*MGA*) to enact a bylaw facilitating property tax exemptions for renewable power development on brownfield sites. The analysis in the report provides a rationale for the proposed exemption structure, level, duration, and additional eligibility considerations.

Following a Notice of Motion (EC2023-0131) by Councillor Spencer in February 2023, Administration was directed to explore tax incentives for renewable power generation on brownfield sites. In October 2023, Administration brought forward the Council policy "Tax incentives for renewable power generation development on brownfield sites" (EC2023-1120) which Council then passed. Administration has continued work to develop a bylaw to implement this policy, triggered by an application for the ATCO Deerfoot Solar Project. The objective of the program is to make the best use of Calgary's brownfield sites and provide value to Calgarians while aligning with the zero-carbon energy transition goal of the Calgary Climate Strategy – Pathways to 2050. *MGA* s. 364.2 enables The City of Calgary to create a property tax bylaw to incentivize the development of non-residential properties, including renewable solar power generation, using property tax exemption tools.

Options for exemption structure, level, and duration are explored to balance competitiveness, value for The City and Calgarians, and tax responsibility redistribution. A scan of other Alberta municipalities shows varying approaches to s. 364.2 incentives and eligibility criteria; however, the majority of existing incentives have a duration of up to five years, typically shorter, and decrease the exemption level over time. Any exemption over this duration is at a maximum of 2.5% per year. Calgary would be competitive with other municipalities if it provided an incentive for a five-year duration.

Economic analysis considered the value for The City of different exemption levels and durations. Due to Calgary's limited number of brownfield sites, this incentive program is likely not scalable, and a disproportionately large incentive compared to the available supply of brownfields may not provide additional value to The City. Additionally, the duration and level of exemption have implications for the redistribution of the tax responsibility to other non-residential properties. The annual municipal taxes projected from the Deerfoot solar property range from $900 thousand to $1.6 million during operation (on the exemptible portion). The portion exempted under the proposed bylaw would be redistributed to other non-residential properties and would create additional tax responsibility for the duration of the incentive. Further, a Net Present Value (NPV) analysis determined that the highest value for The City in perpetuity would be at the 50% exemption level at a five-year duration.

A brownfield renewable power incentive consisting of a 50% municipal property exemption for five years is recommended to support power development on brownfield sites. This incentive program aligns with the Calgary Climate Strategy, provides value for developers, and minimizes negative impacts to the non-residential property tax base. This program will attract renewable power investment to repurpose underutilized brownfields and provide value for residents.

Jurisdictional Scan

Below are the abridged results from the jurisdictional scan of other Alberta municipalities that have employed a *MGA* s. 364.2 bylaw.

In general, 364.2 exemption programs tend to be five years in duration or shorter (with longer durations compensated for by much smaller exemption amounts, where they exist). Most municipalities have structured the exemption to start with a larger impact and decrease year-over-year.
Various jurisdictions have included unique eligibility criteria, included below. These tend to align with an objective of economic development by requiring certain increases to the property value, minimum project capital costs, or employment requirements.

Table 1. Alberta municipalities that have implemented an *MGA* s. 364.2 bylaw.

Jurisdiction	Exemption	Other Eligibility Criteria
Cardston	100% exemption in the first year, 80% in the second, 60% in the third, 40% in the fourth, 20% in the fifth.	Assessed value must increase by 25% compared to the previous assessment.
Drumheller	50% exemption in the first year, 25% in the second year.	$50,000 increase from previous improvement assessment, not including land, and has a demonstrable "Return on Investment."
Hinton	100% exemption in the first year, 75% in the second year, 50% in the third, 25% in the fourth.	Increased assessment value by at least 25% by the end of year two form when the development permit was issued.
Lamont County	2.5% exemption up to ten years.	N/A
Fort Saskatchewan	2.5% exemption for up to ten years.	The project must be within a sector considered part of the energy value chain and deploy a capital cost expenditure of $50 million or more. The project must employ a minimum of 250 workers during construction and 15 permanent positions during operations.
Fort Macleod	100% exemption in the first year, 75% in the second year, 50% in the third year.	$50,000 increase in assessed value from new construction or expansion.
St Paul	100%/50%/25% exemption for five years depending on the zone.	Only new commercial buildings or improvements assessed over $200,000, or additions/expansions/ renovations that are greater than or equal to an increase of 25% of the previous assessment.
Strathcona County	1% exemption for up to eleven years.	New project or an expansion project with eligible capital costs of more than $50 million. Employ over 250 personnel over the course of construction and more than 15 on an ongoing basis after construction is complete.
Strathmore	100% exemption in the first year, 80% in the second, 60% in the third, 40% in the fourth, 20% in the fifth.	The assessment must increase by at least $10,000,000. Employ 25 individuals. The new development must be at least 2,800 square meters in area on one level.
Sturgeon County	1.5% to 2.5% for up to ten years.	The project must be within the energy value chain or associated infrastructure with capital costs over $50 million. Employ over 250 personnel over the course of construction and more than 15 on an

		ongoing basis after construction is complete.
Wetaskiwin	75% exemption in the first year, 50% in the second, and 25% in the third.	N/A
Wheatland County	40% exemption for three years.	The improvement assessment must increase by at least $10,000,000 compared to the base year (land excluded).

Bylaw Framework from Council Policy

The current Council policy includes most components prescribed by the *MGA*, which will be translated into the bylaw. Most necessary components are either unambiguous or have already been determined:

- The bylaw will narrowly apply to:
  - "Eligible brownfield property" that exceeds maximum acceptable contamination, where no further economically or technically feasible remediation can be done.
  - "Renewable power generation facilities" such as solar and wind.
- The eligibility criteria states that:
  - The applicant must not be in arrears owed to The City nor involved in litigation against The City.
  - All permits are in place and the property is in compliance with the *Safety Codes Act*.
  - The facility has not reached its Commercial Operation Date at the time of the application.
  - The proposed generation facility must exceed 5 megawatts of electrical generation capacity.
    - 5 megawatts of electrical generation capacity is the minimum threshold at which the project must apply and be in compliance with the Alberta Utilities Commission and the Alberta Electric System Operator requirements.
- The property tax incentive will only apply to the new linear property improvement(s).
- The incentive will only apply to the municipal portion of property taxes. The provincial portion of property taxes for electric power systems is exempt from taxation until 2026, inclusive[5].
- Appointing the Municipal Assessor as the designated officer under Bylaw 49M2007 and the requirements of his authority.
- The appeal process to Council which will be through the new Tax Incentive Appeal Board

Exemption Level and Duration

With the structure of the Municipal Government Act and the approved Council policy, the remaining components that must be finalized are incentive duration (e.g., 15 years, 10 years, 5 years), incentive level (e.g., 50%, 80%), whether the incentive will remain constant or decrease year-over-year, and if there are additional eligibility criteria that may be appropriate.

Exemption Level

Two types of exemptions are considered: a constant level of exemption, and a decreasing level of exemption.

- A constant exemption will be set at a particular level (e.g., 80%) and will remain at this level for the entire duration of the exemption, 15 years.
- A decreasing level of exemption decreases the exemption for each year during the duration of the exemption (e.g., 80% the first year, 50% the second year, 25% the third year, etc.).

A third type, a dynamic level of exemption (an exemption scale), would have significant implementation constraints, including technological and systems limitations, data availability and timing, administrative and monitoring requirements, and would create additional burden during the applications process. Additionally, this type of exemption scale was not identified in the jurisdictional scan. For these reasons, this type of exemption level is not recommended at this time.

Exemption Duration
MGA section 364.2(3)(c) allows an exemption to be no longer than 15 consecutive years and enables a subsequent exemption for an additional 15 years. The strategic purpose of the exemption is to incentivize development of under-utilized property, and once the incentive has been granted initially, the development and improvement to the under-utilized property will take place. The exemption duration must provide a meaningful incentive to prospective industry while balancing value for taxpayers and considering market conditions. The main considerations for the duration of the exemption are:

1. creating a competitive taxation environment in Calgary to attract renewable power development,
2. ensuring that the exemption level is set such that it is proportional to the availability of sites, and
3. the impact of redistributing the tax responsibility.

To be competitive with other municipalities in Alberta, a scan of Alberta's towns and counties revealed that most incentives under 364.2 are offered for one to two years, typically up to five years. Further, these incentives usually decrease year-over-year. A few counties offer low (1-2%) incentives for a longer period of up to ten years. The incentives also have requirements that vary from employment requirements, capital cost minimum, and physical area. See above for an abridged jurisdictional scan on the duration of exemptions pursuant to *MGA* s. 364.2.

At this time, a subsequent exemption is not under consideration. A 15-year extension following an initial 15-year exemption period is the longest duration available under s. 364.2. Under current considerations of limited scalability of the exemption program, limited availability of sites, and balancing the interests of Calgarians, a second 15-year exemption does not provide sufficient value for consideration. This is due to the diminishing returns on exemptions with longer durations, as discussed below. Should there be an expansion of scope (i.e., allowing sites other brownfield sites) or a significant increase to the number of brownfield sites available in Calgary, and it would add value to Calgarians to offer an extension, this can be considered at that time.

Economic Analysis

Vacant brownfields provide minimal value to The City and Calgarians. A policy to incentivize development repurposes the brownfield to its highest and best use and increases the property value. As an illustrative example, the Deerfoot ATCO site collected approximately $13,000 in municipal taxes in 2022, prior to development. In 2024, post-development, municipal taxes are projected to be $1.2 million. Incentivizing development of Calgary's brownfields creates value for The City.

If Calgary plans to offer the full level of incentive for the entire duration of the exemption, it can be competitive in doing so for 5 years, resulting in higher property tax savings for a company considering investment between competitor jurisdictions. At 10 years, Calgary is exceedingly competitive. At 15 years, the extra incentive does not provide additional competitive value as compared to other jurisdictions. It is also important to note that no directly neighbouring jurisdictions offer an incentive under s. 364.2.

A further consideration is the limited number of suitable brownfield sites available for investment. As this incentive program is not scalable, a disproportionately large incentive would create a mismatch between the demand for sites and their supply, which does not create value for Calgarians, and the excess incentive is an abatable loss for The City. Matching the incentive to the number of brownfield sites will ensure the greatest use for brownfields and the best value for The City. After the implementation of the bylaw, it would be useful to monitor and see if the exemption should be adjusted.

Finally, though the sites are assumed to operate in perpetuity and there is an expected overall net gain from property taxes collected post-exemption, the duration of the exemption will also have implications for the redistribution of the tax responsibility to other non-residential properties. Though the annual municipal taxes projected from the Deerfoot property range from $900 thousand to $1.6 million during operation, which would only represent 0.08-0.15% of the total non-residential tax base, this would be an additional tax responsibility borne by other properties. The duration of the exemption would determine how long this responsibility would be redistributed to other properties and for potential future sites as well. Though this redistribution does not impact The City's property tax revenue, it does minimally increase tax responsibility of other non-residential properties.

Net Present Value Analysis at 50% and 80% Constant Exemption Levels and 15-, 10-, and 5-Year Exemption Durations

As previously mentioned, the level and duration of exemption should match the availability of brownfield sites for future development and should be mindful of trade-offs for providing an exemption level that is too high.

Methodology

Net Present Value (NPV) analysis compares the present value of cash flows throughout the duration of the project with the present value of costs (initial investment). The information is specific to the ATCO Deerfoot site and is meant to provide a sample calculation for consideration. It does not consider all possible sites within The City. This NPV analysis looks at the costs and cash flows to The City in the form of municipal property tax revenue. As power generation is exempt from provincial taxation per the Ministerial Order, provincial property taxes are not calculated. Further, the Designated Industrial Property (DIP) requisition is a flow-through payment collected on all DIP sites and remitted to the province, and as such is excluded from the NPV analysis.

The three sets of tables below show the total amount of tax revenue anticipated at each exemption duration and the impact of a 50% and 80% incentive at that exemption duration. These tables only look at revenue during the length of the exemption and do not include perpetuity after the exemption (unless otherwise noted). Each set of tables first provides the total municipal property tax revenue expected during the exemption period if no exemption was applied (e.g., 15 years, 10 years, 5 years). The second table in each set compares a 50% exemption level to an 80% exemption level at the given exemption duration. The table shows the property taxes that are expected to be collected at the exemption level and exemption duration, the property taxes that will not be collected and will be offered as the incentive, and the net value (revenue) to The City of the indefinite perpetuity after the exemption ends and the site returns to full taxation.

A perpetuity is expected on solar sites as there is no anticipated end-of-life for solar power generation operations. Due to the significant financial burden and regulatory risks associated with new sites, developers are more likely to continue to operate existing sites long term, replacing existing components as they reach end-of-life, rather than decommission at end of lifecycle. These would be considered typical operation and maintenance expenses in the context of solar assets and are low expenditures in comparison to new developments. Additionally, the fuel source for solar assets is essentially limitless, and as such, the assets can theoretically continue to operate indefinitely without depleting feedstock fuel.

Tables 2-7. Net present value analyses of 50% and 80% incentive levels at 15-, 10-, and 5-year durations.

15-Year Exemption Duration

15-Year Exemption (2024-2039)	
Net Present Value of Municipal Taxes - Pre-Exemption (Excluding Perpetuity)	$11,050,459

Comparison - 15-Year Exemption (2024-2039)	50% Incentive	80% Incentive
Net Present Value of Taxes Collected at X% Incentive	$5,525,230	$2,210,092
Net Present Value of Tax Exemption at X% Incentive	$5,525,230	$8,840,367
Net Value to The City at X% Incentive Including Perpetuity	$16,167,971	$12,852,834

*Using the Alberta Capital Finance Authority (ACFA) indicative 15-year rate (as at May 1, 2024) of 5.43%[7].

10-Year Exemption Duration

10-Year Exemption (2024-2034)	
Net Present Value of Municipal Taxes - Pre-Exemption (Excluding Perpetuity)	$8,241,835

Comparison - 10-Year Exemption (2024-2034)	50% Incentive	80% Incentive
Net Present Value of Taxes Collected at X% Incentive	$4,120,917	$1,648,367
Net Present Value of Tax Exemption at X% Incentive	$4,120,917	$6,593,468
Net Value to The City at X% Incentive Including Perpetuity	$18,985,659	$16,513,109

*Using the ACFA indicative 10-year rate (as at May 1, 2024) of 5.26%.

5-Year Exemption Duration

5-Year Exemption (2024-2029)	
Net Present Value of Municipal Taxes - Pre-Exemption (Excluding Perpetuity)	$4,825,673

Comparison - 5-Year Exemption (2024-2029)	50% Incentive	80% Incentive
Net Present Value of Taxes Collected at X% Incentive	$2,412,837	$965,135
Net Present Value of Tax Exemption at X% Incentive	$2,412,837	$3,860,539
Net Value to The City at X% Incentive Including Perpetuity	$24,298,030	$22,850,328

*Using the ACFA indicative 5-year rate (as at May 1, 2024) of 5.22%.

The shortest and lowest exemption (5 years at 50%) would provide the largest benefit to The City, with an overall tax value of $24,298,030 including the perpetuity, while still providing a $2.4 million discount on property taxes for the developer. The duration of the exemption has a greater impact than the level of exemption; thus, The City could offer a greater level of exemption for a shorter period to boost competitiveness, while incurring a smaller financial impact (i.e., 5 years at 80%).

Alternatively, a decreasing exemption level could begin at a higher level and end at a lower level, provided that the balance of the entire exemption remains consistent with the trade-offs. Considerations for constant exemptions include that they are typically easier to administer, may have a higher cost if the exemption is set at a higher level, and may be marginally less efficient at advancing the goal of attracting renewable energy investment. A decreasing exemption is in line with how most municipalities deliver their s. 364.2 incentives, frontloads the exemption to reward development as opposed to continuous operation and will ease the tax redistribution responsibility year-over-year.

Given the analysis above, the best option to balance these various considerations to achieve the desired objectives outlined in the Climate Strategy is an exemption at a constant 50% level for a 5-year duration.

Exemption Eligibility Criteria

A scan of eligibility criteria from other jurisdictions (see above) shows that the use of s. 364.2 is primarily to stimulate economic development or revitalization. Aside from similar eligibility criteria to what has already been captured by The City's policy, many municipalities have eligibility criteria that require a minimum capital investment, minimum assessment value growth, employment requirements, or physical size requirements. Solar farms require minimal operational staff post-construction, which makes employment requirements unfeasible. The purpose of this bylaw is primarily to contribute to The City's carbon reduction strategy, and as such, environmental mitigation criteria could be considered (e.g., GHG abatement).

Due to the added complexity of administering additional ongoing eligibility criteria, no additional criteria are recommended. The existing criteria provided by s. 364.2 and those comprised in the bylaw provide sufficient strategic alignment and risk mitigation.

Conclusion

The applicable legislation and Council policy, in combination with the City of Calgary's Climate Strategy, provide a high-level structure to the proposed bylaw and property tax incentive program. A s. 364.2 bylaw would create value for The City by making the highest and best use of brownfield sites, attracting renewable energy investment to Calgary, and aligning with the objectives of the Calgary Climate Strategy.

The analysis in this report informs the decision-making regarding the structure and level of the incentive, the duration of the incentive, and any eligibility criteria or conditions to include, in addition to those outlined in the Council policy. These decisions are informed by considerations of the competitive nature of Calgary's taxation environment, comparative programs in other jurisdictions, the tax responsibility redistributive impact of property tax exemptions, the sufficiency of the incentive to impact property owners' decision to take advantage of the incentive, and the overall climate impact of increased renewable power generation within City boundaries.

A brownfield renewable power incentive program of 50% municipal property tax exemption for 5 years will provide an estimated $2.4 million overall tax incentive to the developer provided in the case study over the length of the exemption duration and would be a net value of $24.3 million to The City including perpetuity. This incentive program will sufficiently support the development of the ATCO site, bringing 37 megawatts of renewable power generation within City boundaries. Finally, the maximum of 5 years of tax redistributive impacts to the non-residential property tax base will minimize negative impacts to other non-residential property owners.