Attachment 2 – TIER Review Engagement HQ Feedback Survey

Participants who wish to provide written feedback to the ongoing consideration and development of Alberta's climate related policies and programming, please provide the following:

Name of individual providing feedback	
Contact Email Address	
Contact Phone Number	
Organization (if applicable)	
Facility (if applicable)	

The personal information collected through the TIER Review Engagement is for developing the recommended policy and system design, and regulatory changes that make up the TIER Renewal. This collection is authorized by section 33 of the *Freedom of Information and Protection of Privacy Act*. If you have any questions, please contact Sam Fiorillo, Director of TIER Policy and Economics by phone at (780) 644-6958 or by email at Sam.Fiorillo@gov.ab.ca.

Regulatory Stringency

Regulatory stringency is a key factor in achieving the desired outcome of emissions reductions while maintaining competitiveness. Included in regulatory stringency is facility coverage, emissions coverage, and the way we set and adjust regulated facility benchmarks over time.

Regulated Facilities and Opt-In

Current TIER Treatment: TIER applies to facilities that emit equal to or greater than 100,000 tonnes of CO_2e per year. A facility that emits below this threshold may opt-in to TIER if it competes directly against a facility that is covered by the regulation, or if the facility has greater than 10,000 tonnes CO_2e of annual emissions and belongs to an emissions-intensive, trade-exposed (EITE) sector as defined in the TIER Regulation reflecting the TIER fund price.

Seeking feedback on: *The TIER regulatory threshold of 100,000 CO_2e per year remains the same. A facility may opt-in to the regulation if it competes directly with a facility covered by the regulation or has greater than 2,000 tonnes CO_2e per year and belongs to an emissions-intensive, trade-exposed (EITE) sector as defined in the TIER Regulation reflecting the annual carbon price as outlined in the federal Greenhouse Gas Pollution Pricing Act.*

What are your comments/feedback on the TIER regulatory threshold remaining the same and the opt-in threshold lowering to 2,000 tonnes CO_2e per year? What are you comments/feedback on updating the emission-intensive trade-exposed assessment based on the annual carbon price outlined in Canada's Greenhouse Gas Pollution Pricing Act?

Venting, Flaring, and Fugitive Emissions

Current TIER Treatment: For the conventional oil and gas (COG) sector, emissions from venting, flaring, and fugitives are not included in the total regulated emissions.

Seeking feedback on: *Expanding TIER emission coverage in the COG sector to include emissions from venting, flaring, and fugitives in the total regulated emissions and the potential for free allocations provided to aggregate facilities for venting, flaring, and fugitive emissions.*

What are your comments/feedback on expanding the TIER emission coverage for the COG sector to include venting, flaring, and fugitive emissions and to provide potential free allocations to these emissions?

Stringency and Tightening Rate

Current TIER Treatment: Under the current TIER system, facility-specific benchmarks (FSBs) are reduced using a linear rate of 1% per year, with the exception of industrial process emissions and emission associated to electricity used. A tightening rate is not applied to sector-specific, high performance benchmarks (HPBs).

Seeking feedback on: *Starting in 2023, reduce FSBs and HPBs at a rate of 2% per year. For both FSB and HPBs, tightening rates would not apply to the non-tightening portion of the calculations, which includes industrial process emissions. Consideration on the Government of Alberta implementing a mechanism that would reduce and/or provide an endpoint to tightening on HPBs.*

What are your comments/feedback on reducing all FSBs and HPBs using a linear rate of 2% per year?

Electricity High Performance Benchmark

Current TIER Treatment: Under the current regulation, electricity generators are subject to a "good-as-best-gas" benchmark (electricity HPB), set at 0.37 tonnes CO_2e per MWh, which is equal to the performance of the best combined-cycle natural gas powered electricity generator in Alberta. Within facility-specific benchmark calculations, the electricity HPB is further used to appropriately account for the net import or export of indirect emissions associated with regulated facility electricity generation and use.

Seeking feedback on: *Reducing the electricity HPB. If applicable, on the new percentage of free allocations, interactions with the offset system, and recommendations on how TIER can be used to ensure affordable and reliable electricity given the federal net zero electricity commitment.*

What are your comments/feedback on reducing the electricity HPB?

Industrial Heat High Performance Benchmark

Current TIER Treatment: Under the current regulation, the HPB value for industrial heat at 0.06299 tonnes CO_2e per gigajoule, which is based on an 80% efficient natural gas boiler. The calculation of facility specific benchmarks is dependent on indirect HPBs including industrial heat, and for calculating compliance obligations as an allocation rate for electricity, industrial heat and hydrogen exported as a product.

Seeking feedback on: *If the industrial heat HPB needs to track any potential adjustments to the electricity HPB and/or if it should be updated based on a higher efficient natural gas boiler. Also seeking feedback on the impact of reductions to the heat HPB value on fairness and competitiveness issues, particularly in regards to cogeneration unit operators.*

What are your comments/feedback on adjusting the heat HPB to track any potential changes to the electricity HPB?

Hydrogen High Performance Benchmark

Current TIER Treatment: Under the current regulation, the HPB value for hydrogen is 9.068 tonnes CO_2e per tonne of hydrogen. The calculation of facility specific benchmarks is dependent on indirect HPBs including hydrogen, and for calculating compliance obligations as an allocation rate for electricity, industrial heat and hydrogen exported as a product or generated and used on-site at refineries and upgraders.

Seeking feedback on: *Reducing the current hydrogen HPB to a value that could lend support to the provincial hydrogen roadmap initiatives, while maintaining the marginal price signal, and addressing supply and demand considerations in the compliance market.*

What are your comments/feedback on adjusting the hydrogen HPB?

Negative Emissions Allocations

Current TIER Treatment: Allowable emissions are calculated as the production multiplied by the benchmarks adjusted for imported heat, hydrogen, or electricity. Under the current regulation, allowable emissions cannot be less than zero.

Seeking feedback on: *Removing the restriction on allowable emissions and allow for negative emissions allocations to be provided to regulated facilities. This is likely to be required in a variety of future circumstances to ensure that the appropriate carbon accounting occurs. This includes electricity generation using a substantial fraction of imported hydrogen fuel, operation of a sequestration facility as a large emitter where total regulated emissions are negative due to carbon dioxide import or for a facility that wishes to opt-in as a waste heat to electricity site with another regulated facility supplying and receiving credit for the waste heat.*

What are your comments/feedback on allowing negative allowable emissions to be provided to regulate facilities?

Global Best in Class Benchmarks for New Facilities

Current TIER Treatment: A new facility, as defined under the regulation, is provided a facility-specific benchmark for its third year of commercial operation using a 5% reduction target, with the reduction target increasing by 5% per year until the regulated reduction target for the calendar year is reached (e.g. 14% reduction target in 2023, 16% reduction target in 2024, etc.).

- Seeking feedback on: *Maintaining existing definition and treatment for new facilities, but allow for new facilities demonstrating best-in-class emissions intensity performance to apply for a high-performance benchmark (HPB) under the following criteria with mitigations for unverified emissions data or data inconsistent with Alberta quantification protocols applied:*
    - *no equivalent product currently exists under TIER.*

- *the proposed facility is likely to trigger the TIER threshold and/or have emission intensive trade exposed products; and*
- *more than one similar facility exists internationally and there are quantified emissions and production available.*

What are your comments/feedback on providing a global best in class benchmark for new facilities?

Are there any other comments/feedback you have on regulatory stringency within TIER?

Compliance Flexibility and Carbon Markets

An important component of the TIER Regulation is the provision for compliance flexibility and the associated emission offset and emission performance credit market. Compliance flexibility is provided recognizing that regulated facilities are not always able to reduce emissions on-site in the near term. These options establish compliance certainty for regulated facilities while ensuring emission reductions are achieved.

Compliance Options

Current TIER Treatment: Regulated facilities can comply with the TIER reduction requirements by:

- reducing emissions on-site;
- submitting emission offsets;
- submitting emission performance credits; and/or
- paying into the TIER fund at $50 per tonne.

Seeking feedback on: *The compliance options remain the same. Starting January 1, 2023, the TIER fund price would follow the annual carbon price as outlined in Canada's Greenhouse Gas Pollution Pricing Act.*

What are your comments/feedback on compliance options and the TIER fund price?

Crediting Period

Current TIER Treatment: Under the current TIER system, offset projects, with the exception of carbon capture, utilization and storage (CCUS) projects and some vent gas reduction projects, are able to generate emission offset credits using an approved quantification protocol, for eight consecutive years following the start date of the offset project, unless otherwise specified in the applicable quantification protocol. Offset project developers can make a request to the director for five year extension(s) or an initial 10 year crediting period with no possibility of extensions.

Seeking feedback on: *Starting in 2023, removing the ability for offset project developers to make a request to the director for five year extension(s) or an initial 10 year crediting period for projects. The established crediting period for offset projects generating emission offset credits prior to January 1, 2023 would remain unchanged.*

What are your comments/feedback on removing the ability for offset project developers to request five year extension(s) or to request an initial ten year credit period for projects?

Credit Expiry

Current TIER Treatment: Emission offsets (EOs) may only be used to meet compliance obligations within the nine-year period beginning with the year in which the offset was generated; unused emission offsets expire after this period and cannot be used to meet compliance obligations outside of the nine-year period post generation. Emission Performance Credits (EPCs) may only be used to meet compliance obligations within an eight-year period after the year in which the credit is issued; unused emission performance credits expire after this period and cannot be used to meet compliance obligations outside of the eight-year period post generation.

Seeking feedback on: *Reducing the credit expiry period for both EPCs and emission offsets, starting with credits generated after December 31, 2022. The expiry period for EPCs and emission offsets generated prior to January 1, 2023 would remain unchanged.*

What are your comments/feedback on reducing the credit expiry period for both EPCs and emission offsets?

Credit Usage Limit

Current TIER Treatment: Under the current regulation, facilities may use offsets and emissions performance credits to meet up to 60% of their compliance obligations (the credit-use limit). The remaining compliance obligation must be met through the purchase of TIER fund credits.

Seeking feedback on: *If the credit-use limit should be increased from 60% to enable regulated facilities to meet a greater proportion of their compliance obligations through the use of emission offsets and emission performance credits. If applicable, seeking feedback on how going forward the mechanism used to set the annual credit usage limit can be flexible to adjust to market dynamics.*

What are your comments/feedback on increasing the 60% credit-use limit that regulated facility can use to meet their compliance obligation through the use of emission offsets or emission performance credits?

Are there any other comments/feedback you have on compliance flexibility and carbon markets within TIER?

Other System Design Features

Other important TIER design elements and considerations are presented for feedback. Alberta has implemented the emissions offset system for over 15 years. Design and implementation details of the emission offset system will be considered to ensure the policy framework continues to provide the signals and support needed to achieve emission reductions outside of regulated facilities.

Further, it is important to maintain the competitiveness of Alberta industry while achieving significant greenhouse gas emissions reductions under TIER. The cost containment program has been established to ensure impacts to competitiveness are identified and mitigated.

Electricity Grid Displacement Factor

Current TIER Treatment: The Electricity Grid Displacement Factor (grid factor) reflects the greenhouse gas emission intensity of the marginal megawatt-hour (MWh) in Alberta's electricity generation, and is used in the calculation for generating emission offsets under the TIER system. The current grid factor is 0.53 tCO_2e per MWh.

Seeking feedback on: *The grid displacement factor transition to align with the high performance benchmark (HPB) for electricity including any future adjustments to the HPB as they occur.*

Seeking feedback on the alignment of the grid factor and electricity HPB and if alignment should begin in 2024 or utilize a phased approach.

What are your comments/feedback on aligning the grid factor to the electricity HPB and the details of this approach?

Emission Offset Protocol Development and Revision

Current TIER Treatment: Under the current TIER protocol development and revision process, protocol developers are welcome to submit a proposals to develop or revise a protocol by the end of each calendar year.

Seeking feedback on: *Starting in 2023, implementing a 'call for proposal' process where the department puts out a call for protocol proposals, moving away from an annual intake. The frequency on the call for proposals would be dependent on a number of factors including but not limited to government priorities, available resources, and ongoing protocol work.*

What are your comments/feedback on implementing a new call for proposal process to develop or revise an offset protocol?

Emission Offset Reporting Period

Current TIER Treatment: Under the current TIER system, offset project developers are able to choose reporting frequency and length of reporting period.

Seeking feedback on: *Starting in 2023, requiring offset project developers to submit a project report to the Alberta Emission Offset Registry at least every 3 years.*

What are your comments/feedback on requiring offset project developers to submit a project report to the Alberta Emission Offset Registry at least every three years?

Emission Offset Generation for Geological Carbon Sequestration

Current TIER Treatment: Under the current regulation, carbon capture and storage operations are able to generate one emission offset for capturing carbon and one emission offset for sequestering the same tonne of CO_2e. When the price of the TIER fund is between $40 and $80 per tonne of CO_2e the additional credit is scaled from one at $40 to zero at $80.

Seeking feedback on: *Starting in the year 2023, and onwards, it is proposed to only allow only one emission offset to be generated for each sequestered tonne of CO_2e emissions, regardless of the TIER fund price.*

What are your comments/feedback on allowing only one emission offset to be generated for each sequestered tonne of CO_2e emissions, regardless of the TIER fund price?

Creation of Unique Carbon Capture, Utilization and Storage (CCUS) Credits

Current TIER Treatment: Under the current TIER system, CCUS projects that follows an approved quantification protocol are able to generate emission offsets at the point where the CO_2 is geologically sequestered or utilized for enhanced oil recovery. The benefits to the regulated facility, where the CO_2 is captured, may be realized through an agreement between the regulated facility and the offset project proponents.

Seeking feedback on: *Creating a new class of credits specific to CCUS activities to better enable the flowing of credits and value back to the sites of carbon capture. Once created CCUS emission offsets (saline aquifer sequestration and enhanced oil recovery) could be converted to the new class in the year of creation and would be directly deducted from total regulated emissions of the capturing facility. The credit usage limit would not apply and any excess reductions would be issued as emission performance credits of the same vintage.*

What are your comments/feedback on creating a new class of CCUS credits?

Bioenergy with Carbon Capture and Storage (BECCS)

Current TIER Treatment: Under the current regulation, CO_2 emissions including biomass CO_2 that are captured and sent off-site to be geologically sequestered are included in a facility's exported CO_2, which increase the total regulated emissions. This approach does not result in a net benefit to a facility for capturing and sequestering biomass CO_2 emissions (BECCS)

because CO_2 emissions generated from the combustion, decomposition, or fermentation of biomass from plant materials and animal waste that are sent off-site to be geologically sequestered are currently excluded from the direct emissions and benchmarking calculation.

Seeking feedback on: *To recognize the emission reductions from BECCS, it is proposed that CO_2 emissions generated from the combustion, decomposition, or fermentation of biomass from plant materials and animal waste, which are sent off-site to be geologically sequestered, are reported, but not included in the exported CO_2.*

What are your comments/feedback on incentivizing bioenergy with carbon capture and storage?

Compliance Cost Containment Program

- Current TIER Treatment: Under the current TIER system, the Compliance Cost Containment Program is intended to provide relief to facilities experiencing economic hardship as a result of compliance costs. If the TIER Regulation compliance costs of an individual facility exceed 3% of sales or 10% of profit, that facility may be eligible to receive relief under the Compliance Cost Containment Program. Relief provided can include:
    - removing the credit use limit, which is currently set at 60% of a facility true-up obligation.
    - assigning additional emission allocations using a compliance cost containment allocation benchmark (BCCA). Note that BCCA allocation cannot cause the facility's compliance to gross sales or profit ratios to go below 3% or 10%, respectively.
- Seeking feedback on: *Updates to the cost containment program design and relief mechanisms, keeping with the TIER principles of increased competitiveness, encouraging innovation, and continuous improvement, as well as the need to maintain the marginal carbon price signal for Alberta. Possible updates to the cost containment program could include:*
    - *eligible facility is assigned a BCCA for a 3 to 5 year period based on economic hardship at the time of application in addition to credit use limit being removed;*
    - *BCCAs are tapered over the 3 to 5 year period, incrementally returning to emission allocations that would have been assigned to the facility in absence of the cost containment program. Removal of the credit use limit would still apply; and*
    - *facilities that enter the regulation after January 1, 2023 are ineligible for the cost containment program.*

What are your comments/feedback on changes to the cost containment program design to keep the TIER principles as well as maintaining the marginal carbon price signal?

Are there any other comments/feedback you have on other system design within TIER?

Other items

Do you have any other any comments/feedback on any other aspects of the TIER Regulation?