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RADICLE

CARBON MARKET BUSINESS BRIEF

ALBERTA

ALBERTA'S TIER AT A GLANCE

Years in operation	2007: Specified Gas Emitters Regulation (SGER) begins 2018: Carbon Competitiveness Incentive Regulation (CCIR) replaces SGER 2020: Technology Innovation and Emissions Reduction (TIER) regulation replaces CCIR

Overall cap & trajectory	• TIER regulation applies to facilities that emitted 100,000 tonnes of CO_2 equivalent (tCO_2e) or more per year in 2016, or a subsequent year.
	• Emission reduction obligations are determined using either a:
	  • Facility-specific benchmark; or
	  • High-performance benchmark.
	• In most cases, a regulated facility is subject to the less stringent of the two.
	• The stringency of facility-specific benchmarks increases by 1% annually until reaching the high-performance benchmark; the high-performance benchmark is not subject to annual tightening.

Target(s)	• Limit oil sands emissions to 100 million tCO_2e • Phase out coal-fired electricity generation by 2030 • Reduce methane emissions 45% from 2014 levels by 2025
Emissions Reduced to date	194.6 $MtCO_2e$ required a compliance submission between 2007 and 2020. Total regulated emissions in 2020 were 153.9 $MtCO_2e$, requiring compliance submissions totalling 20.6 $MtCO_2e$
Sectors covered	• Ammonia • Ammonium nitrate • Bituminous coal • Cement • Electricity • Ethylene glycol • Hardwood kraft pulp • High-value chemicals • Hydrogen • Industrial heat • Natural gas processing • Oil sands in situ bitumen • Oil sands mining bitumen • Softwood kraft pulp

GHGs covered	• CO_2 • Methane • N_2O • HFCs • SF_6 • PFCs • NF_3
# of covered entities	Approximately 460
Allocation method	Allocation is based on the facility-specific benchmark or high-performance benchmark approach
Trading rules	Benchmarks can be met by: • Reducing facility emissions intensity; • Retiring Emission Performance Credits (EPCs), which can be traded; • Retiring Alberta-based emissions offsets, which can be traded; and/or • Paying into the TIER Fund at prevailing TIER Fund price. • 2022 TIER Fund Price: C$50/t$CO_2$e (aligned with 2022 federal benchmark requirements under GGPPA)
Use of offsets and linking	• No more than 60% of a facility's compliance obligation can be met with EPCs or offsets • EPCs produced from 2017 onwards have an eight-year expiry • Offsets produced from 2017 onwards have a nine-year expiry
Other features	N/A
Penalties for non-compliance	A fine of no more than C$200/t$CO_2$e, for instances where the net emissions for the regulated facility exceeds its allowable emissions
Use of revenues	• Investing in emission reductions technology; • Reducing Alberta deficits; and/or • Supporting the province's energy war room, the "Canadian Energy Centre".

MAJOR DEVELOPMENTS

TIER was launched on 1 January 2020, with a C$30/t$CO_2$e compliance fund price. While under the purview of the provincial Alberta government, the TIER programme must maintain minimum baseline standards set by the federal Output-Based Pricing System (OBPS; see separate Canada federal OBPS brief) in order to remain as an approved pollution pricing system. In order to maintain this minimum baseline standard, in late 2020, the provincial government raised the TIER 2021 compliance fund price to C$40/t$CO_2$e.

In March of 2021, a Supreme Court of Canada appeal was made on the constitutionality of the Greenhouse Gas Pollution Pricing Act (GGPPA), which subsequently upheld the Act's ability to regulate provincial GHG pricing systems. As a result, the Alberta government in late 2021 raised the 2022 compliance fund price to C$50/t$CO_2$e.

Alberta has not yet legislated to increase its 2023 fund price, but it is anticipated to increase by C$15/t$CO_2$e to C$65 to align with the federal GGPPA minimum carbon price requirements. Further escalations of C$15/t$CO_2$e per year through 2030 are expected.

In August 2021, the Government of Canada published an update to the Pan-Canadian Approach to Carbon Pollution Pricing for the 2023-30 period. The update includes requirements that all provincial pricing systems must meet in order to remain outside the direct regulation of the federal OBPS. At the time of writing, a scheduled review of TIER was underway ahead of the onset of these requirements in 2023. The requirements cover a broad range of criteria, including overall carbon pricing levels, the scope of covered emissions, maintaining a price signal in the market, stringency levels for regulated industries, application of rebates, the use of offsets, and public reporting.

There remains a level of uncertainty in the market over this review as (1) the federal requirements are quite opaque and subject to interpretation and (2) any review of TIER that determines that changes need to be implemented will introduce policy changes to the programme in short order. Further details on the outcome of this review should be available later this year.

MARKET COMMENTARY

While other cap-and-trade markets such as those in California or the EU set overall emissions levels and then auction off allowances, TIER operates as a conventional supply/demand market in the sense that both sides of credit development and retirement float each year. The overall emissions of regulated entities under TIER are not capped, but rather the carbon intensities of outputs. Over time, the stringency levels of these output-based carbon intensities under TIER will be tightened.

From a market perspective, trading credits under the TIER programme is intricate and opaque. Alberta compliance-grade offsets and EPCs are traded through bilateral agreements directly between counterparties and require the establishment of direct relationships or brokered deal matching. Overall credit supply and demand levels will vary based on a number of factors, but the market's volatility can generally be grouped into one of the categories listed below:

1. market conditions, reflecting the overall supply-demand balance;
2. policy changes; and,
3. commercial positioning.

Policy changes have had, by far, the largest impact on secondary market pricing. Any enacted or perceived future policy changes tend to dictate the overall level of secondary market prices. Further to this, political risk is stacked as the provincial government regulates TIER, but is subject to overall steering guidance that is set at the federal level. As can be seen in Figure 1, while there has been a general pricing trend higher in advance of yearly cap increases, the majority of price movements has come in sync with year-end Ministerial Orders to align TIER pricing with federal levels.

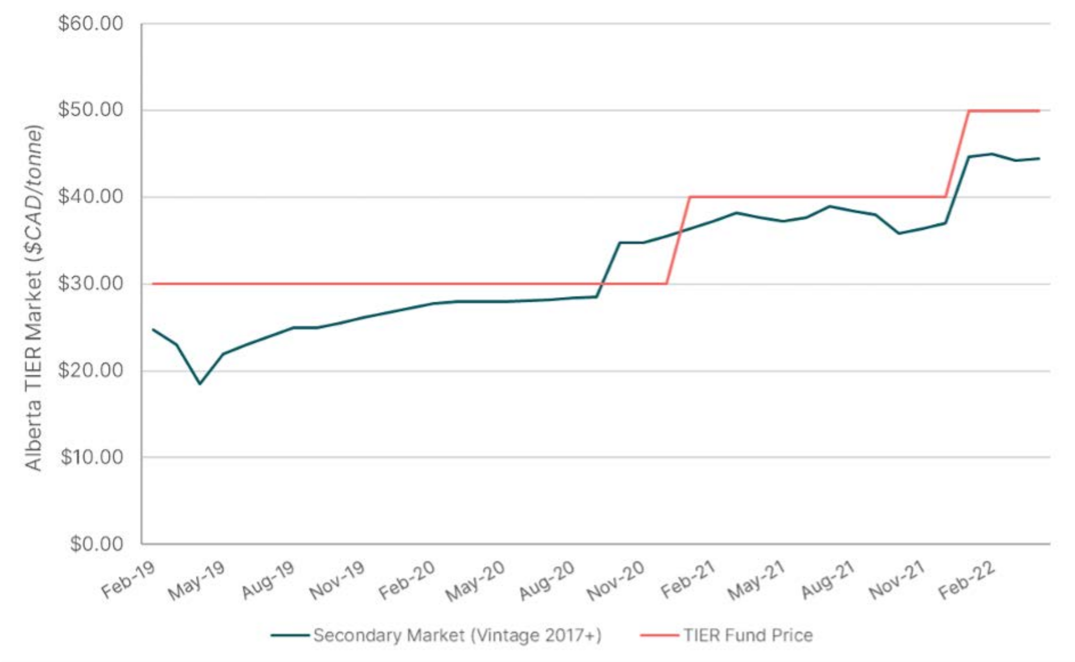

FIGURE 1
Historical indicative Alberta TIER prices
Source: Radicle Group Inc., www.radiclebalance.com

TABLE 1.
Alberta carbon pricing impacts

	Projected Canadian Carbon Tax Price (CAD/tCO_2e)
2022	$50
2023	$65
2024	$80
2025	$95
2026	$110
2027	$125
2028	$140
2029	$155
2030	$170

Future guidance for carbon pricing through 2030 has been set by the Canadian federal government under the schedule set out in Table 1. Following on the Supreme Court ruling in March 2021, the constitutionality of a federally mandated carbon price across the country has been upheld. However, as carbon prices have accelerated and the topic of carbon pricing has come front-and-centre on electoral stages, there remains substantial political risk for any future carbon pricing pathway with every election cycle (in both directions).

As has been seen in other compliance carbon markets over the last year, overall volatility remains very nuanced and subject to numerous external market forces. The evolution of carbon markets into their mature states has led to an increasing overlay with other commodity prices, the emergence of a greater number of speculators into these markets, and the presence of rising levels of international geopolitical risk. While global market impacts in 2021/22 have had a muted effect secondary market prices under TIER, given lower OTC liquidity and the dominance of trading activity from regulated participants, the presence of these risk sources is still worth noting for any potential market entrant. Developments of healthy trading strategies under TIER require a sophisticated understanding of the risks involved and an ever-changing political landscape.

USEFUL LINKS

TIER Regulation Fact Sheet

Alberta Emission Offset System

Alberta TIER Regulation Homepage

REFERENCES

Technology Innovation and Emissions Reduction Regulation

Alberta Environment and Parks, Compliance Year 2020 LFE/Opt-In Compliance Workshop

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