TransAlta Corporation

2021 Investor Day

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Introduction

Chiara Valentini

Vice President Strategic Finance & Investor Relations, TransAlta Corporation

Good morning everyone and welcome to TransAlta's 2021 Virtual Investor Day here in Calgary. I am Chiara Valentini and I am the Vice President of Strategic Finance and Investor Relations at TransAlta. I would like to note that today's presentation is being recorded and a replay of the event will be posted to our website and available later today. As we begin our session, please note that this presentation includes forward-looking statements, which are based on assumptions and subject to risks and uncertainties many of which are set forth on the slide. I encourage you to read these statements at your convenience. This presentation also contains references to non-IFRS measures including terms such as EBITDA and free cash flow, such as measures and others used may not be comparable to other measures presented by other entities. Information regarding these non-IFRS measures can be found within this presentation and are also detailed further and reconciled within our annual and quarterly MD&A reports for your reference. All amounts referenced during the presentation are in Canadian currency unless otherwise noted.

With us here today is John Kousinioris, TransAlta's President and Chief Executive Officer, along with members of the executive team of TransAlta. John together with the team, are excited to be here today to share with you our update to our strategic plan and key priorities across our business. Joining us today are Todd Stack, Chief Financial Officer; Kerry O'Reilly Wilks, Executive Vice President-Legal, Commercial and External Affairs; Aron Willis, Executive Vice President-Growth; Blain van Melle, Executive Vice President-Alberta Business; Michael Novelli, Executive Vice President-Generation; and Jane Fedoretz, Executive Vice President-People, Talent and Transformation. Now without further delay, I would like to introduce John Kousinioris, President and Chief Executive Officer of TransAlta. He will kick off our agenda with an overview of our strategic plan and objectives. Welcome, John.

Strategic Overview

John Kousinioris

President & Chief Executive Officer, TransAlta Corporation

Thank you, Chiara. Welcome everyone and thank you for being with us today. As part of our commitment towards reconciliation, I want to begin by acknowledging that the studio from which we are broadcasting is located in the traditional territories of the Niitsitapi, the people of Treaty 7 region in Southern Alberta, which includes the Siksika, the Piikani, the Kainai, the Tsuut'ina and the Stoney-Nakoda First Nations, as well as the home of Métis Nation Region 3. We're excited to be able to roll out our vision for the next phase of TransAlta's evolution. We're proud of our company and all that it has accomplished since it was founded over 100 years ago.

But we're at an inflection point both in terms of the pathways that our company will follow and the environment in which we work and live. Our goal is to be a leading customer-centered clean electricity company, one that is committed to a sustainable future. Our strategy is focused on meeting our customers need for clean, low cost and reliable electricity, operational excellence and continual improvement in everything that we do, which is a core ethos of our company. Our people and ensuring that we maintain a talented workforce and that we empower them to achieve all that they can with a focus on excellence and increasing shareholder value by growing our portfolio of high quality electricity facilities that deliver stable and predictable cash flows. Our values are critical to our journey and have proven themselves to be so during the course of the COVID-19 pandemic. We're guided by a commitment to safety and all that we do, innovation sustainability, respect and integrity.

Our business model is founded on four pillars, our Alberta merchant hydro fleet, which is unique and perpetual. It is a critical asset in meeting peak energy needs in the province and in providing grid support through its leading position in the province's evolving ancillary services market; our legacy thermal generation, now essentially all gas, which has been a focal point for our company's operations for years; our highly capable energy trading and marketing team with its proprietary trading capabilities, intelligence gathering function and optimization expertise along with its continuous interactions with our universe of existing and potential customers. And finally, our customer-centered contracted renewables and gas business, which is within our TransAlta Renewables subsidiary, a core asset of our company and one that forms a mutually reinforcing circle with TransAlta. TransAlta provides TransAlta Renewables with expertise, growth opportunities and efficient operations. In turn, TransAlta Renewables provides TransAlta with strong asset valuations, competitive growth capital and a reliable dividend stream. Our company has a diversified and resilient generating fleet and leading trading and optimization capabilities, all guided by a single leadership team driving operational and financial synergies.

So what have we achieved since we last met with you in 2019? We've accelerated and substantially completed our clean energy transition. We've increased the size of our renewables fleet by almost 20%, established a wind and solar development pipeline that has over 3 gigawatts in size and are actively constructing almost 400 megawatts in contracted renewables and storage solutions in Canada and Australia. We've also established Canadian, US and Australian growth teams. During the same period, we have reduced our thermal coal capacity in Alberta by a third and are completing our final coal-to-gas conversion at Keephills 3. As part of that process, we've reduced our CO2 emissions by more than 60% from our emissions levels in 2005 and have set ambitious targets for further greenhouse gas emissions reductions. It has been quite the transformation.
We've also dramatically enhanced the financial strength of our company, something which Todd will be speaking to you about in more detail. We're expecting record free cash flow in 2021, have reduced our senior debt by approximately 31% over the past two years and have provided our shareholders a 6% annual increase in our dividend. And today, we announced an 11% increase in our annual dividend to $0.20 per share, delivering an overall 8% average increase. Our company is on solid financial footing and we're confident in our ability to execute our strategy.

Today is about the future and the direction that we will be guiding the company. Global decarbonization is accelerating. Governments are converging towards explicit net zero goals that show seriousness of intent with platforms on carbon policy, fuel standards and infrastructure programs directed towards reducing carbon and increasing electrification. The cost of renewables and storage technologies continues to fall and become increasingly more

competitive against conventional fossil fuel driven generation. The private sector is also responding. One-fifth of the world's 2,000 largest companies have committed to net zero or carbon neutrality targets. And investors have been similarly increasing their commitment to making an impact through their investments. Trillions of dollars of investments are being deployed and managed with sustainable investment policy frameworks in mind. The path to energy transition required presents tremendous opportunities for our company given our skill set, competitive advantages and market positioning. Opportunities that we're uniquely positioned to capture in each of our core markets of Canada, the United States, and Australia. It's a once in a generation shift that will drive our sector for years to come. The investment required to achieve the targets that have been set are considerable, 2.5 to 6 times higher than current levels of investment up to a staggering $1.8 trillion annually. And some forecasters think that's low, suggesting the required investments would need to increase to $5 trillion annually by 2030. We believe the 2020s will be a decade of massive clean energy expansion and we're excited for the role that TransAlta will play in that expansion.

Earlier this year Canada increased its national 2030 emissions reduction target to 40% to 45% from 20% – from 2005 levels. An incredibly ambitious target given that Canada's emissions only declined by 1% between 2005 and 2019. Under the Canadian vision, a clean electricity grid is crucial to enable decarbonization of industrial emissions across entire sectors of our underlying economy. We see opportunity in the gap between where our country sits today and where we've committed to go by 2030. TransAlta is well-placed to help lead the energy transformation required in this country and it's already dramatically contributed to our country's ambitious emissions reductions goals. Major steps have been taken in support of the required energy transformation, including formalizing carbon price escalation to CAD 170 per tonne by 2030 and creating new programs to support growth in renewables and energy storage. These steps favor rapid development and further investment in renewables and energy storage broadly aligned with societal and business expectations and increase the uncertainty associated with thermal generation, especially new thermal generation.

And it's impossible to talk about Canada's emissions reductions ambitions without focusing on the challenges faced and opportunities presented by Alberta. Alberta produces more than one third of Canada's national emissions. There's no solution to emissions reductions in Canada that doesn't go through Alberta, our home and a market we know intimately well. Our estimates show Alberta's business as usual generating grid is not on a path to align with Canada's 2030 emissions goal or achieve net zero. This creates uncertainty for gas-fired generation, particularly new large scale baseload gas generation, which both Kerry and Blain will be discussing in greater detail later this morning. There is tremendous opportunity for our company in the gap between our current reality and where we aspire to go. TransAlta is well positioned to grow our renewable generation, our hydro fleet will become more important as a complement to intermittent renewables and as a source of ancillary services and our focus on energy storage will be critical to the transition. Alberta's intensive industrial – emissions intensive industrial customers also present a growing market for TransAlta's ESG solutions. As we make the energy transition, our coal to gas units offer a critical piece of the infrastructure puzzle toward a lower emission future. And the lifespan of these units aligns well with an accelerated net zero timeline. These units will provide reliable and competitively priced electricity while we develop new generation and storage technologies. We see risks for new merchant gas generation in Alberta. The simple fact is absent deployment of technologies like CCUS, the lifespan of these facilities lock in emissions that cannot exist if we hope to reach our climate targets. We expect these units to come under increasing policy pressure and face the same risk of stranded investment, we

experienced during the coal transition. We're excited about the opportunities presented in our clean electricity growth strategy for the province as we focus on the solutions Alberta's grid will require in the future, while we meet the needs of industrial customers seeking to accelerate their emissions reductions journey.

Another element critical to the future pathways of our company is the rapid evolution we are seeing here in the Alberta market itself. As we look out towards the next few years we see stability in supply and load that will drive constructive pricing levels and modest volatility. This will favor baseload oriented generation with merchant exposure and optimization expertise. This plays into our current strengths at TransAlta. However, we're about to experience a significant build out of renewables storage and gas generation. The renewables additions in particular are coming into the province as institutions and industry look to use Alberta's deregulated energy only market to support corporate sustainability goals regardless of whether they're located in Alberta or other parts of the country. As Blain will show you, we expect this to impact supply and demand fundamentals and moderate average pricing yet increase volatility in the mid to latter part of the decade. We believe significant long life merchant baseload generation investments will face risk in a market with high renewables penetration and intensifying decarbonization policies. We're preparing our company for this reality focused on fleet diversity, peaking generation, ancillary services offerings and a low carbon footprint, coupled with our longstanding optimization expertise. Our investment strategy will ensure that we're well-positioned to be successful in not only the current robust pricing environment but also in an environment with lower average prices but higher levels of volatility.

The evolution that we see in energy markets globally and our convictions about the ongoing impacts in the Alberta market has led us to make a number of key decisions relating to our Alberta thermal fleet. As Kerry and Blain will discuss in detail, the uncertainty we see in regulatory policy, carbon pricing and performance standard thresholds and carbon abatement technology coupled with the supply and demand imbalance we foresee has led us to suspend the Sundance 5 repowering project, retire Keephills 1 at the end of 2021 and retire Sundance 4 by the end of the first quarter of 2022. Our main focus going forward will be on contributing to the acceleration of the clean electricity transformation we are experiencing.

Today, we're outlining our clean electricity growth plan, which will see the company grow as a customer centered renewables power generator to deliver lasting returns and value to our investors. We've established six strategic priorities to guide our path from 2021 to 2025. Accelerate growth into contracted customer centered renewables and storage, which Aron will be speaking to you about, take a targeted approach to diversification, maintain our financial strength and capital discipline, define the next generation of power solutions that will meet the needs of our economy and communities in the back half of the decade and the decade to come, lead an ESG policy development, it's imperative that an independent power producer like ours actively participates in the policy evolution of the markets in which we operate and compete and successfully navigate through the COVID-19 pandemic.

We are optimistic and see considerable opportunities for TransAlta as the race to decarbonize unfolds over the next decade. I've outlined our priorities and now we'd like to walk you through our targets, our measures of success as we accelerate our growth and continue our clean electricity evolution. We plan to deliver 2 gigawatts of new renewables capacity by 2025 by deploying CAD 3 billion of growth capital with the target of achieving cumulative annual EBITDA for new growth projects of CAD 250 million by 2025. Our investment focus from 2021 to 2025

will be wind, solar, and storage. But we will do this with disciplined capital allocation. Our goal is to create value for our shareholders by securing competitive, risk adjusted returns. It's not a plan that's focused on growth for the sake of growth. Our investment path is also focused on expanding the breadth of our growth pipeline to 5 gigawatts from our current 3 gigawatts to meet the needs of an accelerated growth rate. All this will position us well to deliver our longer term goal of doubling the size of our renewables fleet by the end of the decade. This investment path will also see us optimize our legacy fleet and maximize our cash flow from those facilities to continue to be a low-cost cornerstone player in the Alberta power market. We will deploy this cash flow in part to support our funding plan for our renewables and storage growth.

And the shift in our focus will have a profound effect on our company. By the end of 2025, we envision almost 70% of our EBITDA being sourced from renewables generation, significantly higher than the 35% or so that we have today. We're positioning the fleet to be effective and competitive in the increasingly decarbonized world we see ahead. And I'm confident that we will do so. And today you will hear that we have all of the critical pieces in place to be successful.

Our investment focus for the 2021 to 2025 timeframe will be on three broad areas; renewables and storage, where we will expand our core position in onshore wind in North America with customer-centered greenfield development, establish a position in solar generation, targeting the United States, Canada and Australia, initially with a focus on acquisitions. Our recent North Carolina solar acquisition is a great example of this. We see it as the foundation for further expansion into the US market, particularly in the mid-Atlantic states. We'll establish our position in storage, targeting Alberta in particular for that growth and building on our successful WindCharger project to meet the opportunities we see to deliver Alberta's future grid stability requirements. We'll establish our position as a customer-centered hybrid solutions provider, ensuring that we provide integrated low to zero carbon products to customers in Alberta and Australia that have reliability and emissions reductions as key priorities. And of course, we'll optimize our legacy hydro assets to maximize our cash flows and value in the market. For gas generation, our focus will be on optimizing our existing investments to maximize value and minimize risks of rapid market changes from decarbonization goals. We will use the cash flow from these assets to help fund our renewables growth. And finally, we'll be opportunistic and are keeping our eyes open for new investments in parallel industries. We see ourselves providing ESG or clean-focused essential services. And we'll look to complementary sectors, such as water treatment, building on our recent investment in EMG, transmission, distribution, and potentially car charging. And we've established an internal technology team which will monitor developments in new technologies affecting storage, hydrogen and carbon capture to assess their potential for deployment post 2025.

We have a number of competitive advantages that helped drive our growth and they're all oriented towards meeting the needs of our customers. You'll hear from Kerry on decarbonization, Blain about our positioning in Alberta, Aron on our approach to growth, Mike on our operations expertise, Todd on our trading and optimization capabilities and financial capacity, and Jane on our most important advantage, our people. Our advantages include a strong balance sheet with over CAD 2 billion of liquidity and a competitive cost of capital in TransAlta Renewables, strong operational excellence built up over our 110-year history with extensive experience in wind, hydro, solar, storage, and gas, founded on Canada's largest wind fleet and Alberta's largest hydro fleet, leading optimization and trading expertise where we have strong capabilities, in-house market intelligence, forecasting capabilities, particularly for Alberta and extensive customer interactions, sophisticated internal development expertise with teams

that are able to manage through every aspect and every stage of new project development from resource assessment to site control, permitting, contracting, engineering, construction, and project management. Customers are increasingly looking not just to pricing for the procurement of clean electricity but also to develop credibility. And that's where we shine. We have leading ESG credentials with extensive CO2 emissions reductions, which we view as being in the vanguard of energy transition in Canada. And this matters. Many industrial and commercial entities are embarking on their own ESG journeys and are looking to partner with someone that is on a similar journey with experience and the realities of the energy transition. We have a local presence in each of our three core markets with people on the ground focused on growth in our Calgary, Perth, and Boulder offices and a continued focus on the customer, which is something on which we pride ourselves. Our customer-centered framework puts the customer at the heart of everything that we do. Most developers do not have all of these characteristics but we do. And we believe that it's a distinguishing and competitive advantage for our company.

We have a strong ESG focus at TransAlta. We have set ambitious targets for ourselves and see them as underpinning the success of our business. Our environmental goals have us phasing out coal-fired generation in Canada this year and the United States by the end of 2025, reducing GHG emissions by 70% below 2005 levels by 2030 and achieving carbon neutrality by 2050. And these aren't just targets. They're actual guideposts that govern our decision making. Our social goals are focused on supporting indigenous communities, where we work and live, reducing safety incidents, so that the men and women that work in our facilities go home safely each and every day and reclaiming the land that we have used for mining at Centralia in Washington State and Highvale in Alberta. Finally, our governance goals are focused on having 50% female representation on our board by 2030, increasing the number of women working at our company from 23% today to 40% by 2030, ensuring equal pay for women and men at our company, a goal we achieved this year and removing systemic barriers across the organization. We will also continue our leadership through comprehensive ESG reporting in our integrated annual report.

Our efforts and progress in sustainability, which we view in a holistic manner, is notable and has been recognized. It's also good business. Our customers, our investors, our employees and our communities demanded of us.

I'd now like to turn it over to Kerry O'Reilly Wilks to discuss in greater detail our decarbonization journey, our current policy environment and the importance of ESG to our company. Kerry, over to you.

Leading Decarbonization and ESG

Kerry O’Reilly Wilks

Executive Vice President-Legal, Commercial & External Affairs, TransAlta Corporation

Thanks John, I'm Kerry O'Reilly Wilks and I oversee all legal and external relations matters along with ESG at TransAlta. Beyond this, my principal focus is on our commercial business outside of Alberta. I'm very proud to be part of an executive leadership team with a power generation company that has made and continues to make extraordinary strides as a leader in global climate

change impact and as well is at the forefront of equity, diversity, and inclusion work in Canada. Today, I'm pleased to share the great work that we've done in ESG in the next few slides. TransAlta has a broad set of sustainability metrics guiding our work toward becoming a more sustainable, equitable, diverse and inclusive organization. We've reported on sustainability for over 25 years and 2020 marked our sixth year of integrating financial and environment, social and governance disclosure. We track over 80 social and environmental key performance indicators, many aligned with United Nations Sustainable Development Goals and report in alignment with TCFD and SASB, two leading ESG frameworks. Our sustainability goal process links targets to sustainability and financial materiality, sets macro targets that are both year-over-year and long term and involves approval at the executive as well as the board level. This morning I'm going to focus on our climate targets and climate policy. But first, I'd like to take a moment to acknowledge the importance of the National Day for Truth and Reconciliation coming up on Thursday. TransAlta is proud to have relationships with more than 20 First Nation Communities across our operating fleet in Canada, the United States and Australia and work to continue to support our long term and respectful relationships with our indigenous partners.

Moving on to the climate conversation. As you can see here, we're well on our way toward achieving our published 60% reduction target from 2015 by 2030, which equates to 70% from 2005. This is a really massive feat with more to come. Our coal retirements will deliver significant emissions reductions. Our completion of selected coal to gas conversions will continue delivering low cost reliable electricity with far lower emissions. Our growing renewable portfolio offsets the need for thermal generation and provides growth opportunities aligned with our climate target. And we've continued to show up as an industry leader by installing Alberta's first utility scale battery storage facility connected to a wind asset. New opportunities in this area will enable us to provide more reliable, clean electricity to the market.

Since 2015, TransAlta has made tremendous progress in reducing its emissions as we achieved a remarkable corporate transformation. TransAlta is one of the few energy companies around the globe that has successfully executed a strategy that has achieved this level of absolute emissions reductions in such a short time. This is a truly fantastic achievement. In 2020, we've reached a 61% carbon reduction from 2005 levels. And as I mentioned earlier, we're well on our way to our 2030 target of 60% from 2015 levels, which equates to a 70% reduction from 2005 levels. Just to put that in context, TransAlta alone has delivered the equivalent of 8% of the emissions reductions necessary to achieve Canada's national emissions reductions target of 40% to 45% reductions from 2005 levels. Our progress to-date and our 2030 target situate us well in our operating jurisdictions. We've already exceeded the 2030 national targets in Canada, the United States and Australia and positioned ourselves to help other companies in these jurisdictions achieve emissions reductions through our customer-focused solutions. The end of coal generation in Alberta this year and the retirement of our Centralia coal unit at the end of 2025 will produce further downward step changes in our emissions profile. We're watching budget negotiations on energy incentives, state policies and mandates in the United States and Australia as well as the level of momentum in our jurisdictions toward cleaner grids and net zero goals. All of this policy activity across our major markets supports our ability to accelerate our progress. In fact with the plan that we've outlined today, moving forward, we believe that we will accelerate our progress toward our 2030 target and deliver an even greater contribution to global climate efforts. Our 2030 target and 2050 carbon neutrality goal provide clear, medium and long-term signals to the market and we use them as internal anchors to guide our investment, operational and technology investment decisions.

As we look beyond 2030 toward our carbon neutrality goal, we're exploring a variety of game changing technologies to complete our emissions reductions journey. These include continued growth in our wind and solar businesses, long duration batteries connected to our renewable assets that provide electric system reliability and enable greater renewables penetration, large scale energy storage, including pumped storage at our Brazeau site. And of course, hydrogen, a technology that may allow us to continue thermal generation on a net zero basis. These last three technologies all require significant government support to facilitate their path to commercialization. We're actively engaged with governments to ensure the right support and policy framework are achieved and implemented. That being said, our accelerated clean growth plan propels us forward in increasing our asset base with a far lower emissions profile. All of our markets will require renewable generation paired with energy storage. And each country is focused on the role of hydrogen in the energy system. We're well-positioned to leverage our significant expertise across a variety of geographies and technologies. Our intent is to be a thought leader in the renewable space, bringing solutions that work for our company, our customers and the communities that we serve. While our strategy is rooted in a deep understanding of our markets and customers, industry must work with government if we're going to achieve an orderly energy transition. I'm pleased to say that many governments in Canada, the United States, and Australia are aligned with investor and customer interest in clean electricity solutions. Given our company's deep experience delivering substantial emissions reductions over the past 15 years, we've built strong relationships with governments that position us as a trusted advisor. We also continue, as always, to advocate for appropriate government support for new technologies so that we can bring down the cost curve and enable broad deployment through private sector investment. Our work shapes policy, it accelerates technologies and it seeks to ensure reliable and competitively priced electricity for our customers through a time of energy transition.

Now I know that we're all exhausted with video meetings and totally over screened, but if there's one slide you focus on in my presentation, let me ask you for this one to be it. The newly elected government of Canada has committed to achieving a net zero grid by 2035. A recently proposed federal regulatory clarification states that any new large scale natural gas generating facility including repowered coal facilities will face a zero emission standard by 2030 under the federal carbon pricing system or OBPS. A zero performance standard means that by 2030 every single tonne of emissions from new gas facilities including repowered coal facilities would face a full CAD 170 per tonne carbon price under the current federal carbon pricing system. In addition to this clarification, the federal government has also proposed a new clean electricity standard to achieve a net zero electricity goal by 2035. These two measures dramatically increase the uncertainty around the place for new unmitigated baseload gas facilities in Canada's climate future. This focus on reaching net zero will guide the federal government's work with provinces on carbon price equivalency and the implementation of the proposed clean electricity standard. Alberta and other provinces set performance standards under their pricing systems for carbon but the federal government is pushing hard to reach its climate goals. That being said, the federal government continues to maintain its emission standards for coal to gas units. And Alberta is aligned with this approach under [indiscernible] (00:33:32). We believe that this is the right approach for two reasons. It's consistent with the government's commitment to facilitate the off coal transition. The lifespan of these coal to gas units fits within the push to a net zero grid by 2035. We can provide Alberta customers with reliable, competitively priced electricity well into the mid-2030s without creating the risk of stranded capital. This is why we expect governments to abide by their commitment to maintain current coal to gas standards at 0.37 tonnes per megawatt hour and allow these units to operate to end of life. Blain will speak in more detail to

the potential market implications of a 0.37 tonnes performance emission standard for coal to gas. But our analysis shows a competitive advantage for coal to gas units later this decade of carbon pricing, drives up the variable cost of new or repowered gas generation.

From a policy perspective, coal to gas units have a predictable performance standard and a lifespan aligned with the Canadian federal government's 2035 net zero policy goals. New gas facilities face uncertain performance standards, escalating carbon pricing and the clean electricity standard designed to achieve net zero. Our renewable assets may see reduced emissions crediting as performance standards decline but face very low policy risk. The positive risk profile of our assets underscores how our diverse fleet hedges our policy risk and places us in a strong position in the Alberta market.

TransAlta is well advanced in its sustainability journey and I'm really excited about the future. I'll leave you with the following points. We are a sustainable, diverse and inclusive organization with a broad set of ESG metrics guiding our work. We've delivered a 61% emissions reduction since 2005. We have a clear path to reaching our 2030 emissions target that equates to a 70% reduction from 2005 levels. We have a technology roadmap to achieve our carbon neutrality goal. We see strong tailwinds to our plan from governments' intent on reaching net zero electricity grids including a lower climate risk profile for our coal-to-gas assets relative to new gas generation. We'll continue to provide reliable and competitively priced electricity today as we make that transition. Finally, many customers are looking for an energy supplier who is an ESG leader with a track record of real emissions reductions and deployment of innovative technologies. TransAlta has that proven track record along with the expertise and experience to thrive in the energy transition that is well underway. This makes us an ideal partner for customers looking to begin or accelerate their journey toward lower emissions and stronger ESG performance.

I'm pleased to introduce Aron to talk about how our growth strategy builds on our emissions reductions achievements, favorable policy momentum and strong customer demand for the ESG solutions that TransAlta delivers.

Accelerating Clean Growth Strategy

Aron J. Willis

Executive Vice President-Growth, TransAlta Corporation

Thank you, Kerry, and good morning, everyone. I'm Aron Willis, the Executive Vice President of Growth. And I'm proud to have had the opportunity to be a part of the TransAlta team since 1999. Since 2019, I've been leading our Growth team. And I'm pleased to have the opportunity to share this morning our plan to accelerate our growth trajectory as we really sharpen our strategy and our focus on developing and building renewable power solutions for customers and supporting them in achieving their ESG objectives. We've done a tremendous amount of work to position ourselves for this acceleration over the last couple of years. And I'm confident in the platform that we have from which to build. Today, my team and I are working off a development pipeline that is roughly 3 gigawatts in capacity, the largest and highest quality pipeline of opportunities that we've had in some time. Already this year we've had some important successes with the announcement of the Garden Plain project with Pembina Pipeline, the

Northern Goldfields solar project with BHP Nickel West, and the acquisition of the North Carolina solar portfolio. These three projects are adding roughly 300 megawatts of capacity to our fleet. And in addition to those, we have a 500-megawatt of advanced development capacity across three excellent wind sites in Oklahoma. Not only have we built up an inventory of opportunities, we've also built out our team. We now have teams established in each of our key regions. They're advancing our development pipeline and building a network of contacts to ensure we get to assess every opportunity that comes to market.

Building off this platform, today, we're sharing with you both a significant increase in our growth aspirations and a deliberate shift in our focus primarily to delivering renewable power solutions for large customers. As John shared earlier, over the period 2021 to 2025, we will add 2 gigawatts of new assets to our fleet, which will require an investment of approximately CAD 3 billion. Successfully adding these assets will deliver an incremental annual EBITDA of roughly CAD 250 million once the new capacity is fully operational. To achieve this goal, we'll be competing for large customers and a critical aspect of being able to win those deals is having excellent sites to offer. To that end, we will also increase the size of our development pipeline from today's 3 gigawatts of capacity up to 5 gigawatts of capacity or more by 2025. A development pipeline of this size will ensure that we are positioned to continue to grow at a sustained pace rather than seeing large additions in some years followed by smaller additions in others. While these targets are a marked increase compared to our rate of growth over the past few years, we are confident in our ability to achieve them. Based on our announced projects so far in 2021 combined with the advanced development pipeline, I have a clear line of sight to roughly 40% of the deals required to achieve this goal. In addition to that we have a plan for the development of the other priority projects that will allow us to fully achieve the goals that we've set. And I want to be clear, our strategy and these growth targets are all centered in adding value to the company and for our shareholders. We aren't looking to grow for the sake of growth. We have fulsome set of evaluation criteria and each project is tested against those criteria. We've always had a high level of discipline around the investments that we make at TransAlta and we're not changing that approach going forward.

With the focus of our strategy being on the delivery of renewable solutions for our customers to help them achieve their ESG objectives, the corporate renewables market is obviously going to be an area of focus for us. Our team has developed a network for sourcing customer opportunities that we use – that we utilize to originate deals. We participate in RFPs and have a strong network across the broker space. This is a very highly used avenue of procurement for customers. And so it is important to have a presence here. We also have a growing list of direct relationships that allow us to have bilateral conversations about opportunities. These offer the TransAlta team a chance to really customize a solution to fit a customer's need. These discussions lead to the opportunities that can create additional value. Regardless of the source of the opportunity, the TransAlta team is well-positioned to compete for business in this market. We've been supporting large customers across our business for decades and we have our own set of competitive advantages that we bring to this space. First, we're seeing an increasing focus from customers looking to ensure they're contracting with a credible developer and a long term partner. They want to contract with someone who's in it for the long term rather than a developer who's just looking to flip the asset to a new investor at COD to make a quick profit. They want to contract with someone who has the capability to successfully deliver the project safely reliably and on schedule and who has the capability to operate the asset reliably over the long term. That's exactly who we are. TransAlta is that credible developer who is looking to own and operate assets over the long term working in partnership with the customer to deliver on

their ESG objectives. The TransAlta team has assembled an extensive wind platform in North America. So when a customer signs a contract with us, they can be confident that we are planning to be their supplier for the long term. Our credibility as a developer and operator creates advantage for our team as we compete for opportunities in the market. Another key competitive advantage we bring is our trading capability. Risk mitigation is a key theme in renewable PPAs as most customers aren't equipped to manage the risks that can cause volatility in their annual costs of supply. Things like production variations or market price volatility, for example. Our trading and marketing capabilities across each of the major markets in North America position us to help here, whether it be offering an understanding of market dynamics or perhaps the ability to take a trading position to help offset a key risk. Our trade floor can add a tremendous amount of value to these conversations. And once the initial PPA period ends, our team's trading capabilities will allow us to manage and optimize the asset in the merchant market, should an opportunity to re-contract not be available. Of course we also need to compete on price. Our pipeline of development opportunities represents an excellent inventory of competitive sites that we can offer to customers. To advance those sites, we have all of the capabilities that we need in-house to deliver projects right from inception through to completion, carefully managing this process and all of the associated costs. Then, once it's time to build, we have the relationships that we need with suppliers to access the right equipment at competitive pricing. And our team manages the construction of the project, one of the highest risk periods for any project. Once construction is complete, our operating teams stand ready to take on the new assets and integrate them seamlessly into the broader TransAlta fleet. Put simply, our core skills and abilities as a company put us in a strong position to win our share of new opportunities in this market. And I also want to highlight here our internal M&A capabilities. Our growth program is supported by an internal group of M&A experts that evaluate opportunities as they come to market. We've used M&A to acquire key assets in our target markets that are well aligned with our strategy. And to add high quality development sites to our portfolio as a way to expedite the development process timeline. The acquisition of the North Carolina solar portfolio announced last month is a great example of how our M&A team adds new assets and target markets for us from which to build. These types of strategic acquisitions have played and will continue to play an important role in our overall growth strategy.

Before I speak about the opportunities in our development pipeline, I want to discuss the target markets that we're looking at in greater detail. I'll start in the US where the demand for renewable power PPAs continues to remain strong supported by corporate demand as well as policy both at the federal and state levels. The corporate renewable PPA market in the US had yet another record year in 2020 with deals announced totaling over 10.5 gigawatts of capacity. Demand continues to grow as companies in every major sector commit to lowering their emissions footprint. The pace of growth has continued in 2021 and has not been deterred by the global pandemic. Our team, based in Boulder, Colorado, is focusing on several key regions. First is SPP, where demand is high supported by low prices that can be achieved because of the strong wind resources that are available in the region. And this is where our most advanced development sites are. In this region, we're seeing RFPs from both corporate customers as well as utilities. Next is PJM, where we see high levels of demand from large corporate customers. The region has a strong wind resource and we've seen over 1.6 gigawatts of RFPs come to market during the first half of 2021 and that pace has continued through the second half of the year. We're also focusing on the Pacific Northwest where we have a long operating history at our Centralia site and where we see new renewable demand building driven by state level renewable policies. There's a significant transition underway in the region as they move away from coal-fired generation and will require a build-out of renewables to achieve their objectives.

And finally with our recent acquisition, we now have an operating solar platform to build from in the mid-Atlantic region. This is a market that has an excellent solar resource and we expect the rate of new editions to remain high going forward as they also work to transition away from coal.

In Canada most of our activities are centered in Alberta with some activity also underway in Ontario. Blain is going to cover the Alberta market in his section, so I won't go into a lot of detail here. But again, it is a market with a significant generating fleet transition underway. Industrial players in Alberta will need to decarbonize substantially, if Canada plans to meet its national emissions target set for 2030 and 2050. As John mentioned earlier, Alberta accounts for 38% of Canada's emissions with only 12% of the country's population. And we see this creating significant opportunities in the corporate PPA market. Alberta is also the market where nearly all of the corporate renewable deals are done in Canada due to the open and competitive structure of the market combined with the wind and solar resources available. This makes it an attractive and efficient market in which to transact these types of deals. We also see some opportunity in Ontario supported by our existing platform of assets in the province. Here, we primarily see activity from large industrial customers looking at interesting behind the fence options both as ESG plays as well as cost reduction opportunities.

In Australia, our team based in Perth, continues to focus on the remote mining sector. Demand for clean generation solutions is robust driven by increased demand for the commodities being produced as well as the increased attention being placed on ESG objectives by the major mining companies. I'll talk about our recent announcement with BHP Nickel West in some more detail later, as that project is an excellent example of what we're seeing in this region and that we expect to do more of. The national electricity market in the east is a very large and competitive market. Again, the issue of transitioning away from coal is driving a lot of change in the market and excellent wind and solar resources are both present. Recently, we've also seen a large influx of energy storage investments into NEM to provide system support services. We've always had an eye on the NEM to assess whether there's a strategic entry point for us into that market and we'll continue to monitor it going forward.
So I want to shift gears a bit now and discuss our development pipeline. As I said at the outset, this set of development opportunities that our team has assembled is the best that we've had in some time, but we need to continue to expand it. We're targeting to increase the size of our pipeline to 5 gigawatts by 2025, which is a significant increase, particularly when you consider that we need to increase from where we're at today, but we will also need to backfill for the 2 gigawatts of projects that will come out of the pipeline as we execute deals to develop and build those sites. So let's look at the pipeline then starting in the United States where we've assembled a list of opportunities that totals just under 1,200 megawatts of capacity. At this stage, the pipeline is weighted to wind and includes a mix of new greenfield sites as well as expansion opportunities of several of our operating facilities. We have a good mix of projects in SPP, PJM and some in MISO and are continuing to add to this pipeline. Our most advanced sites are the three that you see in Oklahoma and I'll share some more detail on those in a few minutes. The pipeline here is also spread out over time allowing for a good pace of development with target COD date spread across the first half of the 2020s.

Looking at our opportunities set in Canada next, you won't be surprised to see the bulk of the opportunities are here in Alberta. The pipeline is roughly 1,400 megawatts to 2,000 megawatts in size. We still have several excellent wind sites in the province that we're working to develop and contract. And we're planning to build on our battery business in the province following the successful commissioning of the WindCharger battery project in 2020. We also have a couple of

unique solar opportunities that the team is advancing and again, securing PPAs with high quality customers will be key in advancing these opportunities.

In Australia, our opportunities are currently all in the West. Whereas I've said, the team is positioned to capitalize on their expertise in reliable supply to remote mining operations. At a time when the industry that has traditionally been thought of as hard to decarbonize is now looking to reduce their carbon footprint in a meaningful way. Our unique relationship and PPA with BHP Nickel West is an exciting opportunity as our customer looks to reduce their carbon footprint at the same time that they're growing their nickel business to supply the increasing demand for that commodity. We have several opportunities that we're evaluating with Nickel West under the construct of our arrangement. We also see several new opportunities coming to market as the mining industry generally is seeing strong demand for their commodities, which has led to capacity expansions as well as new mine additions.

The White Rock East, White Rock West and Horizon Hill projects total 500 megawatts of capacity and represent an investment opportunity of approximately $750 million. They are our most advanced projects and our top priority as we target to get to a final investment decision in the near future. Our work on each of these sites has advanced to the point that we're now in discussions with potential off-takers for long-term bundled PPAs. And that off-take agreement really is the key outstanding item at each of these projects. We have the rest of the key elements in a place such that once we secure a customer, we will be able to advance the rest of the work to get to FID quite quickly. These projects will qualify for 60% or 80% production tax credits depending on our final timelines and will deliver over $70 million in annual EBITDA once complete. These are excellent projects in a strong wind region and they'll provide a big step forward towards delivering growth targets that we've set for ourselves.

Next, I'd like to give you a very brief update on the projects we already have under construction. I'm focusing only on the new projects announced this year, but I'd also remind you that we're in the final stages now of construction at our Windrise project in Southern Alberta, where the team's over 90% complete and tracking to finish in Q4. Our next wind farm in Alberta will be Garden Plain. We announced this project in May of this year together with our customer Pembina Pipeline. The wind facility has an 18-year PPA with Pembina for 100 of the 130 megawatts of capacity. The main construction activities will start in 2022, but our permitting work has advanced well this year and we will start some site works and road upgrades this fall. Final engineering and design work has also progressed to plan and the construction work packages will be out for bid very shortly. I'm also pleased with the progress we've made towards contracting the remaining 30 megawatts. We are in advanced discussions with a large corporate customer for that remaining capacity of the facility.

The other project we have underway is our solar and battery hybrid project that we're building for BHP Nickel West in Western Australia. We're very excited about this project, as it represents the first significant investment for us at the Nickel West sites since we started supplying electricity there back in 1999. While construction won't start in earnest until next year, we've now received all of the necessary permits to proceed, executed the EPC agreement and placed all major equipment orders. And I thought I'd just take a moment to discuss this project in a little more detail and specifically the process that we undertook to develop this opportunity with BHP. When we executed our second PPA extension with Nickel West in 2020, we were able to establish a construct that would facilitate these types of expansion and life extension investments within the structure of the existing agreements. Globally, BHP has set some

aggressive ESG targets for their business and the team at Nickel West saw a role for their operations to play in achieving these goals. So they worked with the local TransAlta team to evaluate the opportunity to add some renewable sources of generation to these mine sites. Not an insignificant challenge for the teams to evaluate, given the remote nature of the sites and the fact that they aren't interconnected to a larger electricity system. The teams worked together to understand and evaluate potential solutions. And then the TransAlta team narrowed down the options and undertook the design and assessment work. This stage is an iterative process during which we spent a lot of time in discussion with our customer, sharing our progress and ensuring they're comfortable with the option selected and have an understanding of what's being proposed. Once finalized, the TransAlta team undertakes the contracting, procurement and construction of the facility, which is the stage where we're at now. When that's complete, our team will commission and integrate the new asset and we'll manage the ongoing operation as part of the overall supply solution for Nickel West. When it's complete, this solar battery installation will result in a reduction in carbon emissions from the mine of roughly 12% and it will do so in a way that also lowers their annual costs by reducing the volume of gas and diesel fuel required to supply the mine, delivering a significant emission reduction in a way that actually lowers cost at the same time. To use an Aussie rules term, that's really kicking your goal. And for those of you that didn't watch the AFL Grand Final on the weekend, well, for you, I'll just call it a touchdown, but call it what you want, we're really excited to have had the opportunity to create this solution for Nickel West.

And so with that I'll conclude. And here's what I hope you've taken away from my portion of today's presentation. Number one, we are increasing our pace of growth at TransAlta, adding 2 gigawatts of capacity to our fleet by 2025. And two, these additions will require an investment of about CAD 3 billion. Third, we are increasingly focused on delivering renewable power solutions for customers in support of their progress towards their ESG objectives. We have a strong development pipeline, which includes the best set of opportunities that we've had for some time, and we will continue to build this pipeline such that we have 5 gigawatts or more of capacity in that pipeline on an ongoing basis. I have a team set up in each of our three core markets that works together in an integrated fashion supported by the core capabilities of the entire TransAlta organization. And finally, we do have line of sight to deliver on the targets that we've set for ourselves. We have 180 megawatts under construction already and 500 megawatts of advanced development capacity across those three wind sites in Oklahoma. And we've added 120 megawatt solar portfolio this year. This is a tremendous starting point and one that supports my high level of confidence in our ability to deliver our targets. And I very much look forward to sharing more about each of these projects with you as the team advances them.

Thank you for listening. And now I'll hand the floor over to Blain to discuss our Alberta business.

Optimizing and Maintaining Competitive Advantage in Alberta

Blain van Melle

Executive Vice President-Alberta Business, TransAlta Corporation

Thanks, Aron, and good morning. For those of you on this call that don't know me, my name is Blain van Melle, Executive Vice President of the Alberta Business. I've been with TransAlta for close to 18 years. With the expiration of the PPAs at the end of 2020, we consolidated leadership of our Alberta business under a single role. In this new role, I work closely with Mike,

Aron, and Kerry to maximize the full value of our Alberta operations. I started my career in 2004, as a market analyst supporting our Alberta trading operations. And I've worked in various trading and asset optimization roles since. Prior to this role, I spent the past three years leading our Energy Marketing team as a Senior Vice President. I've been involved in various aspects of the Alberta power market during this time and I'm excited and up to the challenge to lead this very important part of TransAlta's business.

This new role allows us to take a more holistic approach to our Alberta business, with a direct tie to our physical operations, oversight of our trading, hedging and optimization, our commercial activities, strategy and growth, and all other business-related activities. Having all these functions consolidate under a single leadership has allowed us to achieve the exceptional results, we've been able to report on so far in 2021, while also allowing us to position the company for continued market leadership in Alberta into the future.
Our Alberta generating fleet is the backbone of our company and where we started 110 years ago. Our fleet consists of various fuel types and it's undergone a major transition in the past three years, moving off predominantly coal-fired generation to being a mix of hydro, renewables, storage and natural gas fired generation. TransAlta is the only large scale hydro producer in Alberta, which gives us an unique competitive advantage. Hydro's fast ramping ability makes it an excellent provider of ancillary service and grid reliability products. Our wind fleet with a low variable cost provides us with a steady stream of environmental credits that allow us to meet our ESG goals. Our wind charger battery project paired with our Summer View wind facility can provide fast frequency response products and other ancillary services to the Alberta electric system operator. With the last of our conversions to natural gas underway with completion targeted in Q4 of 2021, TransAlta will be fully transitioned off coal in Alberta. As you heard Kerry discuss, these conversions could be more competitive the new natural gas fired generation that is proposed to be built within Alberta.

The Alberta power market is undergoing rapid change due to various endogenous and exogenous pressures. The desire for lower carbon emitting generation sources, the rapid decrease in renewables cost, carbon pricing policy and corporate PPA desires have created an environment that will test the supply and demand dynamics of the system. The nature of Alberta's open power market and environmental crediting structure makes the province a prime place for renewable development even for companies that do not have emissions within the province. Let me show you this over the next few slides as this is truly pivotal for both TransAlta and our investment decisions going forward. Although demand has rebounded from the lows in 2020 during the COVID-19 pandemic, demand growth is expected to remain anemic over the next five years likely in the 1% range as opposed to the 3% range we saw through the early 2000s. The high and low forecast case from the AESO vary on different assumptions around oil related power demand and in all cases remain low. We continue to keep our eyes on the overall desire for increased electrification whether this be in the transportation sector, oil and gas sector or through high throughput computing and data centers as a potential catalyst to break this trend.

While demand growth is expected to remain soft, it's a different story when considering supply. Over the next four years, we expect to see a rapid build out of generation in the province. Announced and confirmed renewables include upwards of 4,000 megawatts of wind and solar with many including storage and a net 2,200 megawatts of thermal additions after retirements. What does this mean for supply and demand dynamics? This figure shows average load over total installed capacity. In 2021 you can see that on average load is served by thermal generation

within the merit curve or put it another way, thermal generation gets to compete for this average load. As we progress through time and the blue and green the cogen and renewables portions of the supply stack grow while low growth remains slow, average load becomes more firmly entrenched within the blue and green bars, which are priced at CAD 0 within the merit curve. Our internal forecasts show that by 2027 upwards of 20% of the hours in the year will be CAD 0 priced hours. This is a challenging market dynamic in which to operate if you have large inflexible units as margins will be low. Obviously at times of no renewable generation, the load will have to be served by baseload thermal or imports. But as the renewable base grows this becomes less frequent. I'll discuss this next in our price forecast view and then share with you how we have a competitive advantage in this type of environment, and what this means for investment decisions and our growth strategy.

Part of my work in this new consolidated role was to bolster our longer term market forecasting capabilities and make it best-in- class. The modeling capabilities that the team has developed put us at the forefront of market analytics and allows us to forecast not only prices, but dispatch factors, emissions profiles and overall profitability of both our fleet and our competitors fleets under different scenarios. This work has proven to be pivotal given the changing supply and demand fundamentals I outlined in the previous slides. Our forecast show prices are expected to fall through the mid part of the decade on the backs of a massive supply build out before slowly starting to trend up through the latter part of the decade. This is predicated on a static set of new builds that are in their AESO queue right now. We also have insight into how both our own and in our competitor's assets will be dispatched through this period. On this slide, I've shown the price forecast banned from EDC a provider of market analytics here in Alberta. Although we agree with their forecast for the next two years and in the latter part of the decade, we do see prices coming in softer through the middle part of the decade as we manage through the oversupply period. I've highlighted this with the dashed orange boxes on the figure. We have seen this cycle in Alberta before, most recently in 2015 when the ENMAX Shepard facility came online and we saw prices settle near the marginal cost of the natural gas ledge. We anticipate that we're heading towards a similar situation in the next three to four years before taking some time to recover. Our modeling is sophisticated, as shown in the figure on the right where we show annual average prices for each year of various price runs with varying supply and demand situations. This iterative model allows us to triangulate in on a distribution of price outcomes and use the most likely case for decision making. Although annual average forecasts are low, our internal forecasting shows results that provide us with confidence that our strategy will be sound through this period, given our existing and proposed asset base. The shape of the price outcomes is expected to shift, as mentioned previously, with respect to the number of low and high priced hours that compose the average.

With the build out in renewables and the high number of CAD 0 hours forecasted, we expect to see higher levels of volatility in the Alberta market. This figure illustrates an example of this, this summer showing how during periods of low wind generation, we saw periods of high volatility and stronger prices. I've highlighted two sections of the month of July, one where wind generation was low and prices quickly went to CAD 1,000 per megawatt hour in a situation where wind generation was over 1,000 megawatts and prices were firmly entrenched in the CAD 40 per megawatt hour range. With renewable penetration expected to increase by 150% over the next five years, this reality will further exacerbate itself and create opportunities for generators able to capture these more frequent higher priced hours. This plays to the strength of our team and the unique capabilities of our fleet.

Building on the theme of increased volatility and looking forward into the future, our internal modeling shows that when considering an average price at CAD 50, the composition of how that average is made will change. We expect to see fewer but overall higher priced hours to deviate from the average as we progress through the oversupply situation we see in the middle part of the decade. During this oversupplied period, the hours that make up the light blue and green part of the bars are forecasted to be higher than they would have been historically due to the intermittency of renewables, which cause sudden changes in supply that require market balancing. Large units with must run components will at times be trapped in the dark blue or orange sections of the price distributions and run at a loss or compete on the margin to just cover variable costs. We don't believe these market dynamics are conducive to large heavy base-load dependent units. And instead, we'll be opportune for smaller more flexible units such as our hydro fleet, our converted natural gas units and other forms of storage. Looking at the bars for 2022 and 2023 you can see the reflection of the stronger prices we are realizing right now and the more high priced hours that we currently see. This trend reverses through the overbuild, before starting to build again in the latter part of the decade. Through the middle part of the decade though, we remain confident that we will be able to capture the top part of the bars or the higher priced hours, which we view as being stronger than in the past. Capturing these hours requires the right asset mix, which TransAlta has as well as the people and the capabilities. This is our key competitive advantage.

Using the past two quarters as an example, we illustrate our ability to capture higher than average realized prices of both our hydro and thermal fleet. Although not surprising for our hydro fleet, we're not considering hedges even our thermal fleet is typically dispatched at higher than average pool prices. For both hydro and thermal, this is a result of the unique asset dynamics as well as our trading and optimization team's ability to strategically use our units to achieve higher than average prices. Realized prices for thermal through Q1 and Q2 of 2021 beat the average by 14% for thermal and 28% for our hydro fleet.

As you heard from Kerry, our coal-to-gas converted units which were identified to be the transitional units and the switch from coal to zero-emitting generation sources could be uniquely positioned later in the decade, if federally proposed output-based performance standards are adopted. Converted units such as our Keephills 3, Keephills 2 and Sundance 6 facilities could have a constant performance standard while new gas units constructed after January 1, 2021 could see their performance standards trend to zero by 2030 and therefore, pay the full cost of the CAD 170 per tonne carbon price. If these standards are adopted by 2027 our coal-to-gas converted units will have a significantly lower marginal cost than any of the new combined cycle units that are proposed to be built, including coal plants that are being re-powered as natural gas facilities.

There is a large amount of uncertainty in the supply and demand dynamics. The rising capital costs, the regulatory uncertainty around carbon pricing and performance standards, the competitiveness of the technology choice with other proposed units being built and the uncertainty around the science and cost of carbon capture and storage has led us to the decision to suspend the repowering of Sundance 5 as a combined cycle natural gas fired unit and instead use this capital to fund growth in renewables and other more flexible storage based assets. This reduces the risk of straining capital if a new technology comes to the market displacing natural gas as a generating fuel. Adding to the carbon capture and storage point above carbon capture and storage on a facility like Sundance 5 as a combined cycle gas generator which I will add has not ever been proven to work on low emitting resources like a combined cycle gas generator is

estimated to cost in excess of CAD 1 billion on the capture side alone. This doesn't even consider transporter storage nor a clear path to how the market structure to pay for this cost will be implemented. Other key risk factors include the environmental treatment underground and the high parasitic load the capture component brings to the facility is attached to, which would further erode returns. Right now committing close to CAD 1 billion to build a power plant that to meet government net zero targets will requires carbon capture and storage is a risky bet. With the closure of our Highvale mine at the end of 2021, both Keephills Unit 1 and Sundance 4 would only be able to operate on natural gas at a significantly reduced output level and high inefficient heat rates. Although, they could be candidates for conversions given the time to do the conversion and other capital required to maintain safe and reliable operating statuses, we do not think that conversions are warranted at this time, and therefore we'll look to retire Keephills 1 one on December 31, 2021 and Sundance 4 on March 31, 2022.

Portfolio diversification and operational expertise have us well-positioned to perform in an increasingly proportion to renewable energy-only market increasingly proportion to renewable energy only market. Active portfolio management involving fleet wide optimization of thermal, hydro, wind and storage assets will allow us to remain a dominant player in the Alberta market. Integrated analytics, electricity trading, structuring and origination capability, our commercial and industrial sales business along with natural gas trading and environmental products trading desks allow us to take full advantage of both the changing market and our changing fleet.

As you heard from Aron, we have various advanced growth projects that the team is working on for the Alberta market. I'd like to highlight three of these projects. These projects total 500 megawatts of generation and CAD 1 billion of capital all with great returns. Riplinger Wind in the Waterton area of Alberta will be our largest wind farm and is expected to be 100% contracted. Our SunHills Solar Park will see our reclaimed land at the SunHills mine be turned into a 100% clean renewable generating asset, which again is expected to be fully contracted. Building on the success of our WindCharger battery project at the Summerview wind farm, we are looking to add battery storage to one of our hydro assets on the Bow system in order to provide grid support products to the AESO while also being able to capitalize on increased levels of volatility we expect to manifest over the next seven years. And of course, we continue to evaluate the feasibility of the Brazil pumped hydro project as a large scale storage facility that could provide great integration options to aid in the build-out of the renewable segment of the market. We are strongly positioned to continue to grow our Alberta asset base better tailored to the changing grid dynamics that are about to happen.

TransAlta is strongly positioned with respect to its operations in Alberta. We have the largest hydro fleet in the province and asset class that is uniquely positioned to support a grid through an oversupply situation of non- committal generating sources. We are currently the largest provider of ancillary services, a product that will have increasing value as the renewable build-out continues and volatility increases. Our converted natural gas facilities run as pseudo peakers as shown in our realized prices making us the largest provider of peaking capacity in the province. We have a strong customer and commercial contracting team along with our commercial and industrial retail business to help us to [ph] clear (01:17:18) contracts from our existing and new facilities. We possess the entire marketing platform to further optimize our portfolio with a dedicated natural gas trading and scheduling desk and environmental products desk and a team of power traders, optimizers and analysts. Lastly as I've mentioned at the beginning we've been in this market for 110 years and have the knowledge and experience to know when to pivot our strategy to receive the biggest return on our invested capital.

To summarize with the rapid changes we see coming our way for the Alberta market, we've been faced with some critical decisions on how we shape our fleet to meet the needs of the system and the power consumers of Alberta. If I can leave you with the following key takeaways, they are as follows: We will suspend the repowering of Sundance 5 due to the uncertainty around capacity factors, regulatory changes, carbon pricing and performance standards and rising capital costs. We will retire Sundance 4 and Keephills 1 as the units will be uneconomic, when ran only on natural gas and are not candidates for conversion at this time. We will continue to optimize our existing asset base and maximize the value of our hydro fleet, a fleet of assets that's well positioned to meet the changing pricing dynamics of the market and the needs of our customer base. We will advance contracted renewables projects focusing on storage, we will advance grid reliability products to capitalize on the new market dynamics that the renewables build up will cause, and we will seek and assess new technologies to meet both the ESG goals of the TransAlta, Alberta and Canada.

Thank you. And I'll now hand over to Mike to talk about our operations.

Delivering Operational Excellence

Michael J. Novelli

Executive Vice President-Generation, TransAlta Corporation

Thanks Blain, and good morning everyone. I'm Mike Novelli, the Executive Vice President of Generation and I'm pleased to discuss some of the exciting elements of the business for which I'm responsible. Before I move on being relatively new to TransAlta, I would like to provide a bit of background about myself. I started my career spending six years in the United States Navy in the field of gas turbine controls and propulsion engineering, a great experience which shaped my future career path. Since leaving the Navy, I've accumulated 28 years in an independent power producer space. Prior to joining TransAlta in May of 2020, I spent 10 years with InterGen in a variety of roles with the last three years as a Chief Operating Officer. My collective experiences have positioned me well to join the TransAlta team and positively contribute to this current transition and future strategy.

Let me share with you some of the key aspects that I believe differentiates TransAlta's operation and provides a competitive advantage. TransAlta's operational strategy is shared jointly across the Generation business. This strategy forms the global basis for how we measure and deliver operational excellence in support of Generation's customer base. This globally consistent strategy allows us to drive fleet wide initiatives and exchange innovations, which allows us to be more agile in providing customer service and solutions. Our generating fleet is geographically and technologically diverse and we have the experienced teams in place to deliver our current and future operational needs. Operations has a strong culture of bottom up innovation with the belief that there is no beginning or end to innovation. Through our innovation efforts we find ways to maximize operational efficiencies and costs, which ultimately benefit our customers and deliver shareholder value. Case in point this year we will have delivered over 150 initiatives across a generation organization. They're made up of bottom line improvements, cost and risk avoidance, plan revenue enhancements, and process improvements. We are responsible stewards ensuring we are considerate of our stakeholders while also effectively managing inception through reclamation lifecycle of our facilities and mines. We are customer focused and

we have a long history of meeting and exceeding our customers' expectations while also supporting their ESG goals. Our shared service team provides cost effective, value added services and key support functions to the Generation group in the broader business. Shared service also oversees a technology agnostic, cost effective integration playbook, which provides for repeatable and consistent integrations of the growth assets highlighted by Aron and Blain. Last but definitely not least we will continue to make significant strides in improving our safety culture, organizational health, and focus on equity, diversity, and inclusion.

As has already been highlighted by the end of this year in Alberta, we will have completed a significant step in our transition to cleaner generation. Our portfolio is made up of high quality assets from top tier original equipment manufacturers, including the largest wind portfolio in Canada and the largest hydro fleet in Alberta. We are a fully integrated team in practice that means we are both a customer and service provider across growth, the Alberta Business, Legal Regulatory and Commercial and the shared service teams. The effectiveness of our teams' integration and coordination enables seamless delivery in all phases of facility and customers lifecycle, which is our competitive advantage.

At TransAlta, we define organizational health as the way we choose to work together to get the job done and safety culture as the way we choose to work together to keep each other safe. Two seemingly simple lines and yet so important to our day to day operations, we firmly believe the combination of safety and organizational health together with our equity, diversity and inclusion strategy will result in a safer more engaging and more successful business. First highlighting the lagging indicator, total recordable incident frequency chart, we are proud of our results being well below the industry benchmark for electric power generation. While these results are positive we continue to work to reduce the number of incidents through the inclusion of a leading indicator of Safety Report Frequency into our scorecards alongside our efforts in delivering improved organizational health and safety culture. We believe that the Safety Report Frequency measure is one of the key offensive tools in preventing incidents from occurring. We haven't continued to invest a lot of time and energy in improving organizational health. And we are proud to have moved from bottom quartile to second quartile results. With our upcoming organizational health survey, Generation is now aiming for top quartile results. Improvements in organizational health have supported the challenging period of transitioning off of coal, engagement, participation and bottom up innovation across the generation portfolio and has improved how we work together in delivering One TransAlta generation.

We are acutely focused on continuous improvement across our core key performance indicators of safety, availability, OM&A costs and sustaining capital. Across all three indicators, we are delivering positive and sustainable improvements. We are driving these improvements from three directions. First, strategically from the top down through our Clean Energy Transition Plan, which results in a positive impact in both OM&A and sustaining capital. These are the result of simplified gas operations, which have less operating and maintenance requirements and are less capitally intensive. Second, from the middle in coordination with our shared services, supply chain management and technical service teams, we have been effective in leveraging our key areas of spend through consolidation of RFPs among similar technologies, original equipment manufacturers and service providers. Good examples of these are across our wind and gas long-term service agreements. And third through bottom-up innovation, one key example being the development and implementation of a fleet wide standard around reliability centered maintenance principles, which is tailored to the commercial considerations of each project. Regarding availability while we are on track to deliver improvements, I would like to highlight

that there is a healthy tension between availability and delivering reliable power during periods of system tightness. What we term commercial reliability given the option of maximizing commercial reliability, i.e. gross margin over pure technical availability, gross margin wins every time. Throughout the transition we are focused on maintaining transparency and dealing with our teams in respectful and supportive fashion. The transition unfortunately results in a reduction of our average generation staffing levels from 1,345 to 860 longer term. We have also been thoughtful to ensure we will not be caught short of experienced staff members and have maintained a strong depth of experience across all geographies and technologies supporting TransAlta's current and future generation requirements.

We have a depth of experience and strong track record of stewardship. Our approach ensures coordination of key stakeholder needs balanced by cost effectiveness of reclamation. Similar to Kerry's point on regulatory involvement, our Whitewood mine reclamation for example involved us supporting the development of provincial reclamation guidelines and policies. We have also won numerous awards across many locations where we have successfully overseen reclamation. And as an example of our cost effective approach reclamation, our most recent reclamation at Mississauga was completed on a cost neutral basis, largely resulting from our contracting strategy and utilizing sales of equipment and scrap to fund actual reclamation costs. I will leave you with a few of the remaining mine reclamation manageable headlines. Average annual costs for both mines through reclamation completion of CAD 25 million to CAD 30 million. Centralia will be concluded in 2035. SunHills will be concluded in 2046. At both Centralia and SunHills, we will have planted greater than 1.5 million trees at each location.

We are focused on renewing our energy supply contracts and PPAs that expire within the next five years. Aron already touched on our successful BHP Nickel West blend and extend opportunities. So I'll focus on Sarnia, our largest facility in Ontario. Sarnia is our top near term recontracting priority. We have four industrial customers as well as our contract with the Independent Electricity System Operator or IESO that backs this facility. We are pleased to note that we have already extended a key power and steam supply contract with one of our largest industrial customers at the facility, and we in an active negotiation with the remaining three with an aim to finalizing each of those by the end of this year. We also continue to actively market our Blue Water Energy Park and have entered a new customer segment. We have acquired a new customer to our facility with a sale of 28 megawatts to serve load targeted to commence in November of 2021. Regarding the IESO contract, you may have likely heard that the IESO recently presented a draft design of a competitive RFP for future capacity procurement. Our team is providing feedback to the IESO through the consultation process and that design and we are optimistic to have a path forward for Sarnia and the IESO contract in 2021. We are also fully engaged in seeking clarity around Sarnia in the current Ontario market redesign and how that will affect our other Ontario facilities as well. Finally ESG goals; both for TransAlta and our customers are an integral piece of our discussions with our counter parties and we are looking for additional ways we can assist our customers meet their ESG goals.

In closing I'll leave you with the following thoughts and our ability to deliver also well in the midst of a worldwide pandemic. We are or have wrapping up the delivery of five coal-to-gas conversions and corresponding turnarounds, each with 700 to 800 contract [indiscernible] (01:29:31) brought forward the closure of our SunHills mine. We've integrated three new assets. We transitioned into fully merchant operations in Alberta. We've executed 21 plus turnarounds across a generation portfolio. We've extended and added new contracted customers, completed

the Mississauga reclamation and all while delivering improved results and safety performance, availability, eliminate costs and sustaining capital spend.

Thank you. And I will now hand over to Todd.

Enhancing Value with Energy Marketing

Todd J. Stack

Chief Financial Officer, Executive Vice President-Finance & President-TransAlta Renewables, TransAlta Corporation

Thank you, Mike, and good morning to everyone. I appreciate you all joining us for our Investor Day. For those of you that I haven't met me over the years, my name is Todd Stack and I'm the Chief Financial Officer at TransAlta. I've been with TransAlta for over 30 years and originally started with the company as an engineer in one of our operating divisions before moving into our corporate office. Prior to my current role I acted as our Corporate Controller and our Corporate Treasurer and before that I worked in our development group looking at growth and acquisition opportunities. In addition to holding accountability for the finance function, I also oversee our North American marketing business. And earlier this year I was appointed President of our publicly traded subsidiary TransAlta Renewables. This morning, I will discuss our Energy Marketing business and provide insights into our financing plan for the next five years. So let's jump into the Energy Marketing business.

The North American power industry is an extremely complex mix of interconnected but not integrated regional markets, each with their own set of rules regulations, products, and systems. As markets were deregulating in the late 1990s, we've recognized early on the strategic importance of developing detailed knowledge and market expertise in other regions in order to gain a competitive advantage as the company looks to expand its IPP business. After all these years, the underlying rationale of why we set up the business remains unchanged. There are three high level value propositions that Energy Marketing delivers to TransAlta. First and foremost, Energy Marketing is responsible for marketing and scheduling our merchant asset fleet outside of Alberta along with the procurement of gas transport and storage to our gas fleet. Through these functions we focus on ensuring a strong coordination between operations and front office to ensure optimal decisions are made for the company. Secondly, Energy Marketing provides intellectual knowledge to support our growth team. Over the last three decades the Energy Marketing team has established relationships with hundreds of participants, power pools, customers and suppliers across North America. We currently participate in all US electricity and gas and emissions markets, as well as Ontario. And when our development team is looking for potential assets or greenfield sites, there's a high probability that we have experienced marketing in those regions. The team leverages our first-hand knowledge insights and industry relationships to support the development of new growth opportunities. The third and most visible value proposition is the responsibility for generating a standalone gross margin, separate from our asset businesses. Gross margin, together with value at risk are key drivers for Energy Marketing. And unlike the support they give to the Generation business, which is to reduce risk, the Energy Marketing segment is focused on incremental marketing strategies to generate standalone profits.

Over the last several decades, TransAlta has cultivated a leading North American electricity marketing platform. We remain a Top 5 power trading shop in the Pacific Northwest and a Top 10 power trading shop in terms of breadth of market points, in which we operate. Given the complexity of the industry and the uniqueness of each market, the business is set up under four leaders or marketing desks. These four desks are led by extremely knowledgeable managers, who are each experts in their fields, with decades of experience trading commodities. Each leader is supported by knowledgeable staff, who bring a broad variety of expertise to the team. Our in-house capability to market and trade power across numerous jurisdictions for profit is underpinned by a shared risk values and oversight from our middle office team. Our risk and compliance approach is collaborative and our core governance team runs alongside our marketing floor, providing real-time oversight to ensure that our shareholders' capital is protected. Despite our breadth of operations, risk is well-managed, targeting low value at risk, low gross margin at risk and sound credit practices. We consistently have no material credit losses and our value at risk is typically below CAD 3 million. Our back office supports the team outside of real-time and provides all additional services to deliver a successful business. We have a unique culture driving the floor, that is not only profit motivated, but also fully engaged towards allocating time and resources to enhancing asset values and to developing future growth.

Let me move on to the gross margin aspects of the business and how the team generates strong cash flows without the benefit of physical assets. As I mentioned earlier, the marketing business started with a focus on managing risks around our assets and gaining institutional knowledge in the regions we operate. That service is shown on the first line of this table. And as you can see, all four desks contribute to the supporting of our assets. As the team expanded into new areas, they carried along the learnings from other markets and applied and adjusted as necessary. Our power desks have a strong focus on physical power as a baseline strategy.
Transacting physical power is complex and often requires real time 24/7 coverage. This coverage allows the team to respond quickly to challenges and opportunities. In addition to real-time physical, the desks then layer on additional more diverse strategies. The West Desk focuses on power markets in the western US from the Pacific Northwest down to California and across the Texas. We've been active in these markets for over two decades which started with our acquisition of the Centralia business. Given the interplay in the region between bilateral physical markets like the Pacific Northwest and organized nodal markets like the California ISO, the desk is well versed in moving physical power throughout the Western United States. However, we're not limited to physical power and trade all products from congestion rates to virtual transactions to term trades and everything in between. We are one of the most active physical participants in the Western United States regularly moving power throughout the regions on our long-term transmission rates or procuring short-term transmission as needed. The East Desk started with our Sarnia asset in Ontario and has expanded their presence to all the eastern markets including PJM, the Southwest Power Pool, as well as the New York, New England and Mid-Continent ISOs. We are one of the most active participants in moving power from Ontario into PJM and MISO. We have also expanded into the four requirements business which is a business that offers a complete suite of load following products to Eastern utilities. The gas desk was added as TransAlta recognized the importance of understanding the natural gas pipeline network, just as much as the electrical grid. The interplay between gas and power is critical to understand how to be successful at trading either of these products. We trade physical and financial gas at a number of points across North America and on own pipeline transport and storage rights as well. And the emissions desk evolved more recently as a way for TransAlta to gain knowledge of the ever-expanding carbon credit markets and products. We trade multiple carbon products from offsets

to allowances to renewable energy credits in markets across North America. And just like gas and power, the overlap and interplay of carbon with the rest of the energy complex is increasingly important to understand. Overall, we've developed an extremely broad and well diversified suite of regions and strategies. Strategies change over time and strategies that worked for the last three years may not work this year, which is why the floor is always innovating and looking for new opportunities.

Our capabilities enable us to assess market conditions and fundamentals in order to develop and execute strategies to capture gross margin potential and deliver strong and growing cash flow contributions to the company's bottom line.Over the last five years, our energy trading performance has been outstanding. Marketing conditions have presented higher volatility, which have created many opportunities to enable exceptional returns. Higher market volatility over the last three years has been caused by several factors, such as thermal unit retirements, renewables penetration, and volatile weather events. This volatility has enabled our activities to translate into higher returns. Throughout this period we've maintained a strong culture of responsibly deploying risk capital. For 2021, we are well on track to deliver our gross margin targets along with strong EBITDA and cash flow contribution. Looking forward, we are well positioned to take advantage of market opportunities and deliver strong results into the future.

Energy Marketing was built out of a need for market intelligence and asset optimization within TransAlta in order to operate effectively in a deregulated world and that underpinning reason remains to this day. Through years of expansion and investment, we've built the leading Energy Marketing business that continues to deliver value across the fleet, supports our growth aspirations and provides a strong cash contribution to TransAlta. Energy Marketing continues to be looked at as a consistent performer and a cornerstone of our business. And with that, let me move on to our finance discussion.

Financial Strategy and Plan

Todd J. Stack

Chief Financial Officer, Executive Vice President-Finance & President-TransAlta Renewables, TransAlta Corporation

There are three key themes that I want to cover in our financing outlook. First is that our financial transformation is complete. On the balance sheet, we achieved our targeted senior debt levels earlier this year with senior corporate debt reducing to below CAD 1.1 billion. As it relates to cash flow, we are realizing the full merchant potential of the hydro assets in a post-PPA environment. And with respect to our cost structure we are into our last coal-to-gas conversion and only three months away from our final coal production in Alberta. This will further reduce ongoing capital and operating costs. The second theme is that the company is in a great position to fund the accelerated growth plan laid out by John and Aron. Not only is the balance sheet in great shape, the company is generating significant cash flow over the next few years to fund the growth program. And third, we believe that growth in the renewables business will provide significant long-term value for shareholders, and the current market evolution is providing a once in a lifetime opportunity to transition our fuel mix.

On this slide, we've included three key indicators of our financial transition. Five years ago, we undertook to restructure our balance sheet, following the federal and provincial governments' announcements which required the phase out of our coal facilities and the introduction of significantly more stringent carbon penalties. Since then, we've allocated a disproportionate amount of discretionary cash to the reduction of senior corporate debt. And as shown in the chart on the left, we achieved our targeted debt levels earlier this year as drawings on our credit facility were reduced. During this period, we also changed our debt financing focus to non-recourse investment grade debt to fund our contracted assets primarily within TransAlta Renewables. At the same time, we were transitioning our balance sheet. We knew that the Alberta PPAs were expiring at the end of 2020 and we communicated our views to investors on post PPA benefits, particularly from the hydro assets where significant upsides we're expected. As shown on the chart on the right, that upside has been realized in the first half of the year and these strong results are expected to continue. As announced in Q2, we were able to further increase our full year guidance in a large part due to the strong cash flow from the hydro business. And we continue to see strength in Alberta power prices in Q3 and remain confident in our revised guidance, strengthened our cash flow over the next five years provides us with more flexibility when we look at our capital allocation plans. This morning we were extremely pleased to announce that our board has approved an 11% increase in the dividend level. This results in an average dividend increase of 8% over the last three years. The dividend increase reflects the success of our financial transition, our strong performance in the first half of the year and our confidence in the company's ability to support the dividend over the long term.

Before I jump into financing, I want to discuss return expectations and how we work to enhance standalone project returns. Over the last decade, TransAlta has developed a broad range of renewable projects with each project presenting a spectrum of risk factors and challenges to be managed or retained. This spectrum of risk factor drives our views on appropriate rates of return. As Aron outlined, we expect our pipeline of targets projects to advance as largely contracted assets with strong counterparties. We expect our growth to be within our core geographies of Canada, the US, and Australia, and we expect low technology risk with the portfolio consisting of primarily wind and solar opportunities. On a standalone project basis, we target high single digit project equity returns of roughly between 8% and 10% for these types of projects. The unique risks and opportunities of each project are assessed and evaluated within this range. As Aron indicated price is a significant driver for closing a transaction with a customer, which puts pressure on project returns. This is where discipline comes in. We're not willing to win at any cost and that means that many deals did not come to fruition. However a deal that doesn't work today still has a strong chance of success at some point in the future as conditions change. In addition to standalone project returns, we continually drive to enhance returns over time by optimizing the asset or through other corporate actions. Often we have line of sight to these opportunities when a project is in development, but other times the opportunity materializes through innovation or collaboration. These opportunities and synergies that evolve are driven over time can provide significant upside to returns. And over the year we've been extremely successful in enhancing portfolio returns through different paths. Let me touch on just a few examples. First, on the operating side the expansion of our wind fleet over the last decade has provided us with the opportunity to use scale to drive lower costs when negotiating with service providers. This growing negotiating power increases value across numerous sites, many of them commissioned years ago. Similarly, we look for technology to enhance returns. At sites like our Wolfe Island facility, we applied an innovative new technology to our turbine blades to increase wind production by 3% resulting in increased returns, well after the site was commissioned. On the financing side, we were able to raise very favorable asset level debt against South Hedland

facility. The financing was much larger than originally expected and with a significantly lower coupon than anticipated. The benefits of this financing more than doubled the equity return on this project. Portfolio tax optimization is a common benefit that we regularly realize on Canadian and Australian renewable projects. The lift on returns from tax optimization is typically in the 50 basis point to 100 basis point range, but does depend on the size of the project and its ability to defer the timing of cash taxes. The last enhancement I'm going to talk about is our strategic relationship with TransAlta Renewables. The drop- down of de-risked assets enhances total returns at TransAlta through a management fee and a development fee. First, as the manager of RNW, TransAlta earns a management fee equal to 5% of EBITDA for all new projects, including projects acquired through M&A transactions. And second, due to our RNW's lower cost of capital and the fact that projects have been significantly de-risked to win their drop-down, TransAlta is able to earn a development fee beyond the costs incurred to develop and construct the project. The return lift from a typical drop-down is also in the range of 50 basis points to 100 basis points. The ability to enhance returns at TransAlta by utilizing RNW's low cost of capital is a strategic advantage that we've been able to replicate on numerous transactions. As I look at our pipeline of projects, I expect 50% to 75% of our projects that we develop could be monetized through drop-down to RNW through 2025. These enhancements to standalone project returns drive incremental shareholder value.

Turning to capital allocation, let me highlight our expectations on the trend over the next few years. As I mentioned earlier, our strong cash flow results provide a larger pool of funds to be allocated to our funding priorities. So, first when I look at our commitments on preferred share dividends and on amortizing debt payments, I don't expect these requirements to change materially over the next five-year period. We do expect our RNW to utilize additional project financing to fund drop-downs, but we don't expect to add material non-recourse debt at the TransAlta level. Looking at sustaining capital over the next five years as Mike described the company is transitioning to a lower capital intensity business and I expect us to trend at or below the low end of our target range. Higher operating cash flow at TransAlta combined with a structural reduction in sustaining capital freeze up additional cash capacity to allocate the growth, dividends and share buybacks. This increasing pool of discretionary cash gives us significant confidence as we look at funding the 2 gigawatt growth plan.

Turning now to our consolidated sources and uses over the next five years the majority of our funding is sourced from operating cash flow and a substantial portion of this cash flow will be used to fund our growth program. As our growth pipeline converts into operation, we expect a large portion of the projects will be debt financed at the asset level and be candidates to drop in new TransAlta Renewables beginning in 2022. At TransAlta Renewables as part of our drop-down strategy, we do expect that in addition to asset level financing operating cash flow and cash on hand, RNW will need to raise equity to facilitate the acquisition of assets from our development business. The pace of drop-down is fully within our control and the RNW equity requirements could potentially be funded through direct market access or through its dividend reinvestment program. Our other sources of capital include the refinancing of our 2022 corporate bond maturity and the proceeds from the sale of the Pioneer Pipeline, which closed earlier this year. On the uses side the majority of our consolidated cash generated will be used to fund our CAD 3 billion growth program. So far in 2021, we've announced 300 megawatts of new contracted wind and solar assets, which we funded in 2021 and 2022. And Aron has another 500 megawatts of advanced project in his pipeline, which we expect will be funded in 2022 and 2023. With our cash on hand combined with cash flow over the next few years, I'm confident in our ability to fund this pace of growth. We continue to reserve capital to meet our dividend

payments to both TransAlta and TransAlta Renewables shareholders. And our plan continues to have capacity for additional share buybacks. We continue to see share repurchases as an alternative channel to return value to shareholders. And we will continue to opportunistically execute purchases under the NCIB program.

The last item I'd like to talk about is our credit rating. We currently have an investment grade rating of BBB low with DBRS and BB+ ratings from S&P and Moody's. The company has had no difficulty in raising capital with our split rating and we're comfortable executing our growth strategy at these rating levels. The majority of our growth plan is focused on contracted renewable assets, which we view as credit positive. And over the next five years we have no need to add to our corporate debt balance other than the rollover of our 2022 bond maturity. A portion of our senior debt obligations include the convertible securities held by Brookfield. These securities include conversion rates and we expect these securities will convert sometimes in the mid-decade. RNW will utilize asset level financing once the new assets are operating and the assets have been dropped down. This debt will be structured as investment grade and we expect it to increase from about CAD 2 billion today to a peak of about CAD 3 billion by 2025.

Let me close with four key points. First, our plan is in place to fund our growth program without equity dilution for TransAlta shareholders. Second, we're committed to remain disciplined on targeted returns and will not proceed with projects that don't meet our risk return targets. Third, the balance sheet and outlook for the company has us positioned extremely well to execute this program. And finally, John and I as well as the rest of the executive team are focused on growing long-term shareholder value and believe our growth plan will deliver on that goal.

And with that, let me turn it over to Jane.

Our People and Culture

Jane Nyla Fedoretz

Executive Vice President-People, Talent & Transformation, TransAlta Corporation

Thank you, Todd. Good morning, everyone. I'm Jane Fedoretz. I'm the Executive Vice President of People, Talent and Transformation. We're nearing the end of our presentation and we're looking forward to your questions. I'm here to spend a few minutes to talk with you about our greatest asset, our people.

Culture matters to this company. Our cultural journey has evolved over time. We started organizational health in 2016 and it's had a profound impact on our teams. Our employees have become more agile, have become innovators and have emerged as leaders. Each year we have conducted an annual organizational health survey to monitor our progression. Our scores have improved year-over-year and we're now at top quartile. Research shows that a healthy culture is critical to driving corporate performance and results. And we're now moving to next level cultural improvements to create a better employee experience and more value for our shareholders. This is part of John's vision for the company. That is company growth is dependent on a dynamic company culture. This vision is outlined in our culture framework which is to improve our performance by increasing our emphasis on results, having purpose driven

employees who are committed to the clean vision and increasing our innovation by adding learning into the mix. This cultural shift is a leadership driven activity supported from the top down. And as you can see on the slide, our established policies and practices underpin this work. Our ED&I philosophy and strategy is led by a grassroots team of employees and is integral to our cultural journey. In 2020, our board approved our ED&I pledge which paves the way to commence this work and commits to removing systemic barriers and fostering a culture where employees belong showing up authentically and doing their best work. We have implemented an annual ED&I strategy. It's followed by a targeted action plans for change based on the survey results. In 2021, the board approved a comprehensive five-year ED&I strategy. Our ED&I work is not a token or a one and done activity. All teams are committed to this long-term work and the impact has been immediate. This year we introduced the multi-year Women and Trade Scholarship Program to help achieve our target of 40% female representation across the workforce by 2030. Our ED&I commitment is reflected in our compensation and incentive metrics because we know what gets measured gets done.

Finally, our people, now more than ever the future of work depends on having an agile, high performing work culture with employees, who are able to perform multiple roles successfully. We are an employer who's a differentiator. We care about our people and our culture. We ensure pay equity. Our employees are recognized for their contributions and are provided opportunities to develop their skills by working cross functionally. Our employee and leadership development builds engagement a strong talent pipeline and successors giving our leaders the tools to grow their influence, impact and expertise. The implementation of our full time and hybrid remote work programs provide employees with added flexibility. These retention efforts are reflected in our low voluntary turnover rate. Our competitive advantage from a people perspective lies in the fact that we have built deep in-house talented expertise that in turn provides creative solutions for our customers. We know that these programs are accretive to our shareholders and create a workplace where people want to come to work and perform.

Thank you. I will now turn it back to John.

Closing Remarks / Q & A

John Kousinioris

President & Chief Executive Officer, TransAlta Corporation

Thanks very much, Jane. This morning we outlined our Clean Electricity Growth Plan founded on our company growing as a low carbon customer solutions provider. Our focus is very much on delivering lasting returns and value to our investors.

In summary our six strategic priorities guiding our path from 2021 to 2025 include: accelerating growth into contracted customer centered renewables and storage, taking a targeted approach to diversification maintaining our financial strength and capital discipline, defining the next generation of power solutions that will meet the needs of our economy and communities in the back half of this decade and the decade to follow, leading an ESG policy development and successfully navigating through the COVID-19 pandemic. We're optimistic and see considerable opportunities for TransAlta as the race to decarbonize unfolds over the next decade. We're targeting 2 gigawatts of new renewables capacity by 2025 stemming from CAD 3 billion of growth capital and resulting in new annual EBITDA of CAD 250 million by 2025. Our investment

focus from 2021 to 2025 will be on wind, solar and storage all with a focus on capital allocation discipline. Our goal is to create value for our shareholders.

I'd like to close by highlighting what I think makes TransAlta an attractive investment and a great value opportunity. First, our cash flows are resilient and they're supported by a high quality and highly diversified portfolio as evidenced by our year-to-date results. Our business is driven by our contracted wind portfolio, our unique reliable and perpetual hydro portfolio and our efficient thermal portfolio, all of which are complemented by our world-class energy marketing capabilities. Second, we're a clean electricity leader with a focus on tangible greenhouse gas emission reductions. Our decarburization journey has resulted in GHG reductions that represent close to 8% of Canada's 2030 target. In addition our focus on removing systemic barriers through our commitment to equity, diversity and inclusion and good governance places us well ahead as a leader in ESG. Third, we have an extensive and diversified set of growth opportunities, which includes a pipeline advanced stage projects and a talented development team focused on realizing its value. Fourth, our company has a strong financial foundation. Our balance sheet is in great shape and has ample liquidity to pursue growth. Finally, our people. our people are our greatest asset. We're committed to a company culture where everyone belongs and can bring their best and authentic selves to work to deliver great results for our company. TransAlta has had an exciting time in its development and we're well positioned for the future as a leader in low cost reliable and clean electricity generation focused on serving and meeting the needs of our customers.

We look forward to your questions. Thanks for joining us today.

Questions & Answers

John Kousinioris

Thank you everyone and now we'll transition to the question and answer part of our presentation. This morning I will read out the questions that we're getting and then I'll provide answers and seek out maybe some input from members of our team here to respond to folks' questions. I think we've also got the ability for individuals to provide oral questions which we'll take.

I'll start right away with a question that we received from Robert Hope and the question is looking at your growth backlog it appears it is being built at a 12 times EBITDA multiply, how do you balance this with buying back your shares at a lower multiple? Thank you for that question. When we were developing our targets for the 2021 to 2025 period, we were looking at it from a project perspective at roughly a 12 times multiple from a portfolio perspective. We actually expect to be able to do better than that and you heard Todd earlier talk about some of the value that we can provide on our portfolio basis to increase those returns. We think the best value that we can provide to our shareholders, in terms of our share price, is to continue to execute on our growth program and increase the value for all of our shareholders. In that way we do periodically look at doing share buybacks. I think we've bought back about 150 million dollars' worth of shares over the last few years and it is something that we periodically do look at from time to time. But our focus right now is on increasing value through growth.

I might turn to the next question. Also, from Robert Hope, and that is, as a greater percentage of EBITDA at TransAlta comes from renewable sources, shouldn't the valuation delta between TransAlta and TransAlta Renewables narrow? Does this not lower the drop-down benefit as well as the strategic rationale for having two public vehicles? We do see both companies as increasing in value as we execute our strategic thrust moving into more of an acceleration on clean growth founded on renewables. We do expect the value of TransAlta to go up, we do think with greater visibility around growth that the value of TransAlta Renewables will also increase. We may see the difference between the two decline as the composition of both companies becomes more similar. But we do think of TransAlta Renewables as providing much more of an income-oriented return for investors and we see TransAlta itself as being more growth oriented in terms of what we're doing. So, we do see a convergence, but we do view the two vehicles as being different in their approach, and what they provide to shareholders.

I now turn to a question from Josh McDonald and the question is, what is the plan for the turbine purchased from shell? Thank you for that question. There are two turbines that we acquired as part of the project that we were looking at for Sundance five. It's early days yet and now that we've suspended the project, we'll be actively looking to see what we can do with those turbines and the possibility does exist that we might be able to potentially dispose of them. And like I said we're in early days there, but that is definitely something that we're considering as we look to the totality of all of the commitments and arrangements that we have for that project.

I now turn to another question and this is from Najib Dune and the question is, how was your new strategic shift influenced by your partnership with BEP, if at all, do you expect to expand the partnership going forward to support your growth plans? The strategy that we're embarking on and the focus of what we're doing with the company as we try to accelerate out renewables growth really wasn't influenced much by the partnership that we have with Brookfield. The companies operate on an arm's length basis, we have an excellent relationship with Brookfield and the Brookfield nominee directors are very much. They have their TransAlta hat on when they're actively involved in our board deliberations. So, the plan is a stand-alone plan. In terms of looking to the future and considering whether or not there's things that we can do, there's nothing that's actively being discussed other than the existing financing that we have in place. Which gives Brookfield the ability to convert the financing into a portion of our hydro beginning in 2025.

I'll now maybe turn to another question, this one is from Daryl McCubery and the question is, based on the outlook for prices what percent stake do you expect the existing Brookfield investment to account for at Alberta hydro? I think people have a bit of a sense that the way that the valuation formula works is it's effectively 13 times the three year average EBITDA of our hydro fleet at the time that the conversion actually takes place and the Brookfield investment is in that 750 million dollar range. I think we've been able to show the kind of value and cash flow that our hydro fleet has been able to generate this year and we're confident in its continuing ability to create very strong EBITDA for the company. So, as a general, at least internal, working model we tend to think of Brookfield stake being converted for roughly 30 percent or so of the hydro interest, but the proof will be in when the actual conversion takes place in the middle part of the decade.

We now have a live question from John Mould, so John maybe I'll turn it over to you to ask the question. Thank you.

John Mould – TD Securities

Sure John, thanks very much. Obviously, the governor of Canada has very aggressive decarbonization targets and Alberta is you know among the forefront of where we're going to see system changes given the amount of thermal. And your capacity that you have, even with the cold gas conversion, is a big part of that. What do you think the fleet in Alberta, and I mean the provincial fleet, not just yours, is going to look like in 2030? Where will, or 2035 rather, where are your assets going to be positioned in that overall market? I'm thinking more on the thermal, as you approach that net zero timing. And you know as a company, what do you see fulfilling that supply gap in periods of low to no renewable power? And I'm thinking 30 to 40 below in the winter in Alberta. I know there's a lot of questions in there, but what's your vision for the system and how does that go into how you position the company? That's my overall question.

John Kousinioris

No, thanks very much for that question. Look it's a challenging question. I think the way you articulated the question is exactly right. We've been in circumstances where you know it's February or it's January in Alberta and there is literally no wind being, you know, no wind blowing and if it wasn't for the gas generation in the province, we would have challenges. When we look into the 2030s and beyond you know I think there's really three broad pathways we talk about it. I think what will be key is making sure that those colder gas units, similar to the units that we have, will continue to run throughout the time frame that was envisioned them being a transition fuel into the mid and latter part of the 2030s. I think there will be room and there will be a necessity for natural gas to run into the decade. I think the trick is going to be what are the technologies around carbon capture and storage and what is the cost around that. And then I think the third stream of that is going to be sort of a new technology, whether it's actually hydrogen that comes in to fill in the gap. We're optimistic that, that might be a solution that might leapfrog some of the investments that we see in natural gas are still work to be done, it's an expensive fuel today and the supply of it is a bit more challenged. But it is perspective as is storage and we're looking at the developments there from a technological perspective, but I think all things are going to be needed in the mix and we do continue to see an incremental amount of renewables go in. So, it'll be a challenge for sure, but it's something that I think we need to start addressing and planning for today, because I think it's going to require a bit of deliberateness and planning.

John Mould – TD Securities

Okay maybe I'll slide in one more before I get back in the queue. You know you've long articulated that the Canadian, U.S. and Australian markets should be more than sufficient to meet your growth ambitions. What would cause you to take a look beyond the core markets where you operate right now, and do you see that as a possibility over the next several years?

John Kousinioris

We think that there's tremendous amount of opportunity in each of the three jurisdictions that we're in. I mean when we look at the energy transition that's going to take place in Canada and in Alberta in particular, when we look at what's happening in the United

States and when we see what's happening in Australia, particularly as they move off coal as well, we see a lot of opportunity. We also tend to think of the U.S. market as sort of many sort of micro markets, I mean basically every state, every region, has different dynamics. So, we're very comfortable with our existing footprint. Having said that, we do have a very active M&A team, we do get opportunities from time to time to look at other geographies and we do assess them periodically. You know for us I think it means and I think the way we would think of it, is we would look at the market dynamics, is it a good market? Is it stable? And the kinds of things we would be looking at, is it something that we could actually establish a bit a business in? and is it something that we could lever off a development pipeline to do something that would be meaningful? I don't think we would be looking at going into another jurisdiction for just the one-off acquisition of a facility for example.

John Mould – TD Securities

Okay great I'll leave it there. Thanks very much.

John Kousinioris

Great. Just going, another question, this time I'm going to turn to a question from Mark Jarvie. Can you clarify the equity needs for TransAlta Renewables? The figures imply about 300 million, is that the right amount? Would you consider an at the market program? And would TransAlta be open to being diluted on its TransAlta Renewables ownership? Thanks for that question Mark. Right now, we think that there's quite a bit of debt capacity at TransAlta Renewables to fund a fair bit of the growth we've had a lot of success over time, in terms of executing really strong asset-based financing, project financing for those assets and there is cash flow that can also be redeployed. As for incremental equity financings and TransAlta's ability to actually participate in those maybe I'll turn it over to Todd to see if he has any perspectives that he'd like to share.

Todd J. Stack

Yeah, thanks John. I think you kind of touched on it there a the end and Mark your numbers are probably directionally correct and I would remind you that you know over the course of three four years through the public dividend reinvestment program we can raise a reasonable amount of capital, but again TransAlta can also participate in that dividend reinvestment program. So to your point about you know are we going to maintain our 60 ownership, I think you know we'll make that decision as we get closer to the day, but, TransAlta does have the ability to participate in the drip program as well in order to maintain it sixty percent.

John Kousinioris

Great, thanks Todd. I'll now maybe go to another question, this one from Rupert Murr, and the question is, it seems you're targeting long duration batteries in 2025 and beyond, some peers are looking to build battery storage in the U.S. sooner, can you talk about the economics of batteries and why this is a 2025 plus story and not a 2020 two-story? So, we have been pleasantly surprised with our wind charger project, which is about a year it's coming up to being about a year old. The returns that we've been able to get from that project have been very very strong and we've been able to understand kind of the interplay between the need for batteries

and the role that it plays in ancillary services in the province and how well to link it with renewables so we have a perfectly clean product effectively that is there. I think our plan does look at bringing storage into the province. I think you know the economics of battery storage, at least when we look at them, tend to be challenging at times still, but when we look at some of the incentives that we're seeing from government to drive in more storage, when we see some of the price declines that we see coming into storage, we're beginning to feel much more confident about our ability to see them. And we're really excited about our water charger project where we're gonna look to try to add and meld together storage with our hydro facilities in the province, again to be able to create a product that is good. So when you look at just the development cycle, the time it takes the permit, the time it takes to actually engineer and construct and put it in place, you know realistically we're looking at having that come in over the course of the next a few years. But we do although, we do see it accelerating in the back half of the decade we do expect that you'll see storage coming on from TransAlta earlier than the 2025 time period.
I'll now maybe turn it over to Darius, I think Darius you're on the phone and happy to take a live question from you. Good morning.

Darius Lozny – BofA Global Research

Hi, good morning John and team. Thank you for taking my question. Just hoping to get a little bit more clarity on sort of the some of the underlying assumptions under of your power pricing and the composition of the pricing that Blaine discussed. Specifically, I was wondering if it includes the obps proposal that was presented earlier by Kerry? Just curious if that's sort of embedded and also the impact of that proposal obviously on other participants in the market, if that's embedded in the pricing assumptions that you presented? Thank you.

John Kousinioris

Thank you for that. They are embedded in the pricing assumptions that we have there we also look at you know carbon pricing, we look at the price of natural gas potentially, and the build out of renewables. I might ask Blaine to come in and maybe share some of his perspectives as well and how he sees pricing and just some of the assumptions that went into the modeling that we did there. Blaine.

Blain van Melle

Yeah thanks John. So yeah there's a lot, I mean in all our price forecasting, Darius, we did a lot of different scenarios around a lot of different proposed regulatory standards that could come into effect. We were able to model both you know the market in the latter part of the decade with changing performance standards, either holding them constant, allowing them to drop, as I discussed in my presentation for new gas generation and also holding constant on our colder gas conversions to see how that would affect the prices. What was presented there was one of those scenarios that kind of you know blends a lot of what we looked at together to come up with those, but I point out that you know that forecast is and I mentioned, it takes into account a static set of new build assumptions that is proposed with the ISO right now. A lot of things in there that are subject to change, a lot of regulatory uncertainty that subject to change, and you know just a lot of overall you know uncertainty around carbon pricing and those performance standards which could shift those dramatically. The cost that the plants could face would you know be drastically different under the different performance standards that come.

So, you know as those costs get reflected in the market, you'd have a broad range of price outcomes.

John Kousinioris

Great thanks Blaine. I might go to, or Darius is that okay? or do you have a follow-up?

Darius Lozny – BofA Global Research

No. That was great, that's very helpful. I'll pass it along at this point thank you.

John Kousinioris

Thanks very much. I'll now maybe go to a question that we received from Andrew Kusky and the question is, what is the longer geographic positioning of the asset base, specifically Alberta, versus outside of Alberta? and as a follow-up does the XL Alberta growth in the next few years offset potential Alberta power market weakness? So, when we tend to think of the growth opportunities that we have, we often don't think of it in terms of Alberta versus other parts of the world or you know specifically the U.S. versus Australia. We do have a considerable pipeline of growth assets on the renewable side in Alberta and storage opportunities there and we do expect actually to be able to build out renewable's growth in the province of Alberta. We do see over time there being more investment by the company in jurisdictions outside of our home jurisdiction Alberta, so we do see just the opportunity space that we see in the United States for example will for sure be a preoccupation and a focus for a company and Australia is also exciting for us as well. So, it's really a bit of both in terms of what we tend to see, but over time I would expect to see more of a migration of the business outside of Alberta. We do have growth in Alberta and we do expect the growth that we would be doing in our renewables business to really supplant any weakness that we might see in pricing in Alberta in the middle part of the 20s. In fact when we look at our modeling it sort of independent, in terms of what we see our performance doing from the existing Alberta fleet in that period, we still think that the performance of athlete will be strong throughout that time period with the components that we have of colder gas, the hydro, and our wind fleet.

I'll maybe turn it to Maurice Choi who has a live question for us. So, Maurice happy to take your question.

Maurice Choy – RBC Capital Markets

Thanks John and thank you very much for all the clarifications for today. My first question and I apologize in advance if I did mishear this, but Todd mentioned that 50 to 75 of the project developments would potentially be monetized through drop down to RNW by 2025. Is this just a timing matter or are we saying that the remaining 25 to 50 would be sold to third parties?

John Kousinioris

Yeah no I I'm not sure if that came out in the presentation, but I'll tell you and we tend to think of it just a rough rule of thumb that we have internally Maurice, is that when we look at the

pipeline that we're developing and even the acquisitions that we have, at least my expectation would be, that roughly two-thirds of those opportunities would be of the kind of assets that you would expect to go into TransAlta Renewables. I think Todd may have mentioned 50 to 75 percent and I'll maybe ask him to give his perspectives in a second, the other assets I think would be more the kind of assets that we would expect to see in TransAlta. For example, I'll give you just a quick example of that, so for example storage, which is likely not to be contracted it'll be much more merchant more of an optimization exercise with ancillary service we would expect that product to be much more of a TransAlta corporation project and for example some of the load-following sort of projects that we're looking at for some of our customers may also be better placed in TransAlta Corporation given the optimization that will be required given that there might be merchant elements in meeting those hybrid solutions for customers. Maybe I'll turn it over to Todd to see if there was any clarity, that any more clarity, that we could provide on that question.

Todd J. Stack

John I'm trying to think about more clarity, I think you nailed it. Really the mix of the prospects that we have is still growing and ever expanding and to your point the primary differentiation would be whether there's a merchant component that exists in some of the or even a partial merchant component that we see in those growth and those would probably more naturally still remain at TransAlta and really just depending on the nature of how the growth builds out
over the next three years.

John Kousinioris

Great thanks Todd.

Maurice Choy – RBC Capital Markets

Great, that makes sense. If that, if you wouldn't mind one quick follow-up. So, I guess you decide to suspend Sundance 5 instead of cancelling it permanently, which obviously presents you an optionality down the road, could you walk through I guess the logic and what would propel you to reopen that project? Specifically, there was a massive discussion about federal OBPS you had discussions with the provincial government about how or if this federal OBPS will actually be implemented in the province at all would it be a possibility of an equivalency agreement that may keep that project alive?

John Kousinioris

Yeah, also I appreciate that question as well. So, just to be clear when we talk about suspending Sundance five, we're stopping all work we're not spending any more money on Sundance five, but I think you're right. There is optionality in certainly the project or the concept of the project that we would look to going forward and we are in constant discussion with all levels of government, the federal level, the provincial level. I think it would require us to have a greater sense of certainty, a greater sense of, just a better understanding, of how the market dynamics are evolving before we would proceed. But just following on a question that was asked earlier we're under you know no illusions that the province and, frankly our country, is going to need to have generation types that provide and backstop the system given the volatility that we

might see with renewables generation coming forward. So, for us it's really about clarity, it's about a better understanding of the pathways and life expectancy and the expected returns that we could see there and also just looking at the technological development of that. You know making a big bet like that today where we don't really have a strong sense of where we are with carbon capture technologies and what their costs would be, which could easily dwarf the cost of a repowering, it's just from our perspective, not something that we're prepared to do at this time. So, it's pens down, but there is the possibility depending on how things develop that we could re-envision the project.

I'll now turn to a question that we received from Ben Pham. I'll read out the question. In your longer-term strategic planning i.e. 2025 plus, what other geographies are you considering? and would entry be likely acquisition? and as a follow-up, could you expand on the next generation of power solutions that you would consider that is the reference to batteries or are you looking at hydrogen, utilities, water infrastructure, etc.?

Ben, just for just going back to the latter part of 2025 and other geographies, I think I touched on it a little bit earlier. We are very much focused on our three chord geographies right now. We do get opportunities that come across our desks for other jurisdictions and typically for us I think that would be entry through acquisition. And I talked about the kind of characteristics that we would expect to see in the markets that we might step out into and I think you know acquisition to be able to get us either opportunities, a team, a skill set, local understanding of the market dynamics potentially partnering with somebody should the opportunity present itself is just the way that we think of it and whether that occurs you know before 2025 or after 2025. In terms of the discussion of other technologies, we do have a team that looks at new technologies, two areas that we're focused on quite a bit are, storage technologies looking at different types of r&d that's being done with battery technologies and where the costs are going and hydrogen as well. Both in terms of its applications, but also in the generation or development of the hydrogen in terms of new technologies and in terms of other, what I would call parallel clean investments things like clean water and maybe I'll have Aron who's been actively involved with EMG one of the investments that will made to maybe give you some of the perspectives on how we see investments of that type and how it creates synergies with TransAlta. Aron maybe over to you for some of your perspectives on that.

Aron J. Willis

Sure, thanks John and I sit on the board of EMG. We made an investment in that company last year. We really liked the technology and the people behind that company, and we liked what we saw in terms of the growth trajectory that they had ahead of them. I think the other aspect that was important for us, was the real parallels that we saw between their business and ours and how their technology and their assets become a real core part of a customer's site and become so critical to their operation and also the types of customers that they're talking to people who have strong ESG objectives and we may be able to do some cross-selling between our two companies. TransAlta introducing the EMG team or vice versa and happy with the progress that we've made so far with EMG and their customers.

John Kousinioris

Thanks Aron for that. With the time we have left I see a couple of questions for Mark Jarvi and we'll try Mark to get through both of your questions. I'll read out the first. You talked

extensively about some of the risk for gas-fired assets under the federal OBPS system mostly in the context of the Alberta thermal assets, what about Sarnia? How do you insulate yourself from this risk? Can it be fully passed on to customers? and what is your updated views on Sarnia's remaining asset life? Thank you for that question.

Sarnia is a little bit of a different situation in terms of the way we view the carbon risk of that facility, as compared to sort of our merchant generation in Alberta. Just by way of background we've got really two groups of major, well really three groups, of off takers now from that facility. We have four large industrial customers, we have the ISO in Ontario, and we have a new group of on-site off takers of power, that we're in the process of developing and getting up to speed. It's early days there, but we're really excited about the ability to help some of those kind of fintech companies run their operations there. I'm turning back to the industrial companies, generally speaking the carbon price from the facility is a pass through there, so we don't have the same kind of issues from a carbon perspective there. And as you know we've extended the contract for one of the four industrial customers, we're working on extending the other three and that extension goes from the 2022 time period to the 2032 time period and we're expecting broadly speaking to be successful in seeing that happen with the other industrial customers that we have at the facility. With the ISO it is the other part of the equation in terms of having that contract extended from a life perspective that is set to retire in 2025. The ISO there has recently initiated really a consultation process about procuring capacity both in the medium term and potentially in the longer term. It's still early days on that and we're actively involved in those consultations and we'll see where that process goes, but we remain optimistic both in terms of the extension of that plant into the 2030s it's a critical plant for the industrial customers that we have in that region.

I'll maybe shift to the next question that we had from Mark and I'll read that. It says, the one slide that shows splits of pricing levels for the next several years implies higher volatility and more peaking pricing next year versus this year, do your internal forecast mean that the realized pricing could be even stronger next year compared to this year? Mark thanks for that. I'll maybe give you some perspectives and then ask Blaine to give you his sense of it as well. I think generally when we're looking at pricing for 2022 when we look at where the forward curve pricing is, which now I think is in that 80 plus range, we think that's not bad in terms of fundamentally where we think the pricing is going to be from an average perspective. And we expect the levels of volatility that we see next year to be broadly the same, maybe a little bit less than we saw this year, given all the outages that we had from a coal to gas conversion time frame. But Blaine I might turn it over to you to give some of your own perspectives on how we see pricing into 2022 and frankly even 2023 where we continue to see robust pricing given the demand and supply dynamics.

Blain van Melle

Thanks John and thanks Mark for the question. I'm glad you asked it because it shows that I was able to get some of my message across on how we expect to see the market play out over the next few years. So, as John mentioned 2021 was a unique year, there was significant outages that happened as we did a lot of our conversions and also, we've had some extreme weather events both in February with the cold and then through June and July where we saw the
record heat kind of settle across all the west. That all being said though, the goal for myself and my team is to continue to try to drive those realized prices higher. We do this in various ways,

it's really our it's our people and our capabilities. And one of those ways that we do that is you know not being not dispatching our plants at during times of low pricing or even zero-dollar pricing. So, we do a lot of work with our operations team to have our units with the technology so that we can you know turn them off when we see prices drop and then quickly be able to bring them back online and ramp them as prices become higher. And if you remember from my presentation, I talked about just the sheer number of zero-dollar hours that we see coming for the power pool in the future years as the renewable build out grows. Our goal would be to have our units positioned so that we don't run during those zero dollar hours and then as the renewables come offline we quickly ramp our units back online and help rebalance the system capture that volatility and then even realize a higher average price than what we've been able to do through 2021 so far. So, we kind of see this problem you know growing into the future and we're setting ourselves up to capitalize on it.

John Kousinioris

Thanks Blaine, I appreciate that. We have no further questions at this time. I just wanted to thank you all for listening in today. We're very much excited about the direction that our company is growing in and are very very confident about our ability to execute our plan to create value for all of our shareholders. Thank you all and have a good day.