

## Capital Power – 2021 Investor Day December 2, 2021

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### Corporate Participants

**Randy Mah** - Director, Investor Relations

**Brian Vaasjo** - President and CEO

**Kate Chisholm** - Senior VP, Planning, Stakeholder Relations and Chief Sustainability Officer

**Chris Kopecky** - Senior VP, Chief Legal, Development and Commercial Officer

**Bryan DeNeve** - Senior VP, Operations

**Steven Owens** - Senior VP, Construction and Engineering

**Sandra Haskins** - Senior VP, Finance and CFO

### Conference Call Participants

**Patrick Kenny**, National Bank

**John Mould**, TD Securities

**Andrew Kuske**, Credit Suisse

**Mark Jarvi**, CIBC Capital Markets

**Naji Baydoun**, IA Capital Markets

**Maurice Choy**, RBC Capital Markets

**Robert Hope**, Scotiabank

**Ben Pham**, BMO Capital Markets

### Presentation

#### Slide 1

Good morning and welcome to Capital Power's 13<sup>th</sup> annual Investor Day, coming to you virtually from Edmonton Alberta. I'm Randy Mah, the Director of Investor Relations. Earlier this morning, we issued a press release highlighting some of the major announcements that we'll be covering in greater detail today. The press release is available on our website at [capitalpower.com](http://capitalpower.com).

#### Slide 2

In today's presentation, certain information and responses to questions contain forward-looking information. I ask that you refer to the forward-looking information disclaimer slide at the end of the presentation as well as our disclosure documents filed on SEDAR, for further information on the material factors and risks that could cause

actual results to differ.

#### Slide 3

With that out of the way, I'll introduce members of the executive leadership team that are presenting here today. We have: Brian Vaasjo, President and CEO; Sandra Haskins, Senior VP Finance and CFO; Kate Chisholm, Senior VP, Planning and Stakeholder Relations and our Chief Sustainability Officer; Bryan DeNeve, Senior VP – Operations; Chris Kopecky, Senior VP, Chief Legal, Development and Commercial Officer; and Steve Owens, Senior VP, Construction and Engineering. The executive leadership team also includes Jacquie Pylypiuk, our Senior VP of People, Culture and Technology.

#### Slide 4

This is the agenda for this morning. We'll start off with presentations by Brian Vaasjo, Kate, and Chris, and then we'll take a 5-minute break. After the break, we'll hear from Bryan DeNeve, Steve, Sandra and then conclude with Brian Vaasjo. We expect the total duration for all the presentations to be about two hours. Afterwards, we'll take a 2-minute break to set up and then come back to respond to questions from our analysts.

Reflective of our commitment to health and safety, all of our executives are fully vaccinated and are socially distanced for today's event. Okay, I'll turn it over to Brian to kick things off.

#### Slide 5

Thank you, Randy. Good morning and thank you for joining the Capital Power team today. At the 2017 Investor Day I shared with you that Capital Power, its Management and Board concluded decarbonization will be the driver of generation choice, public policy and technology development in the medium and long term. I also shared with you that we tested, and stress tested, our strategy against that perspective including severe disruption on both sides of the meter. Over the past 5 years our strategy has proved to be very resilient. We have been enhancing the benefits through optimizing our operations and approach to project development and execution, as well as investing in innovation.

#### Slide 6

That strategy was first to continue to invest in wind projects and eventually evolve to include solar and storage. In 2017 we were hoping to be

investing in solar by 2025 and storage later in the decade. We are actually making these investments already. Second was to build or acquire natural gas assets outside of Alberta that would be under long term contract and would have unique market attributes that would drive contract extensions. Our natural gas strategy was also to move towards carbon mitigation by the end of this decade. Today almost a decade earlier, we are on the verge of those decarbonization investments.

Third was to maintain a leadership position in the Alberta merchant market. Today we are not only leading in the Alberta market, we are thriving. Our strategy has not caused us to pivot or slow down. It is driving us forward at an increasing velocity. We are moving faster and further than we had expected. We are committed to this strategy; it has proved to be sound and resilient. However, we have not been blind to other strategies. As we have shared at previous investor days we do consider from time-to-time other business strategies but keep coming back to relying on our core expertise and market strengths. We won't make investments in transmission or retail or utility businesses. If anything, we would take our focus on renewables, natural gas and decarbonization beyond North America.

**Slide 7**

Today we made a number of renewable announcements. The completion of Whittla phase 2 and 3, the largest wind facility in Alberta, commencement of Halkirk phase 2, a 150-megawatt (MWs) windfarm extension in Alberta and the acquisition of 1300 MW of solar sites in the United States with battery potential. We already have two solar sites in construction in Alberta and three more commencing in 2022 in North Carolina. Part of our Alberta renewable strategy has been to contract our facilities when market conditions permit, and this approach is proving out.

**Slide 8**

Turning to our natural gas strategy, a basic premise is having facilities with market characteristics that give recontracting a high probability. Last year we extended the Decatur contract to 2032 and we are currently in

discussions on recontracting Island Generation. Looking forward, recent US Southwest developments make us more bullish on recontracting Arlington Valley than when we acquired it and recent Ontario government announcements position us very well for contract extensions at our facilities near the end of this decade. Adding the potential of carbon mitigation, our natural gas strategy has significant longevity.

**Slide 9**

In Alberta, not only are we leading in the market, we are thriving. The Alberta market is functioning the way it has for the last 20 years with commercial interests dispatching plants. As Chris will describe supply and demand continue to drive the market outlook. The repowering of Genesee 1 and 2 continues on track. We announced today that we are adding 210 MW of battery storage to compliment the repowering plus potentially generate future value on its own. This is our first storage project that has come to fruition. We are very excited by the advancement of the Genesee 1 and 2 carbon capture and storage project. The CO2 hub development process is moving forward in Alberta with the Enbridge project fitting our needs very well. The continuing discussions with both the Federal and Provincial governments continue to be positive. We are targeting an investment decision in late 2022 or early 2023. This opportunity not only represents a material reduction in CO2 but also has very long-term benefits for Alberta.

**Slide 10**

Capital Power's strategy has also yielded significant shareholder value. Since 2017, the five-year compound annual growth rates in adjusted EBITDA and AFFO per share are 17% and 12% respectively. This growth has precipitated a 7% annual dividend growth. Looking forward, including the nearly \$469 million committed capital we announced today, we have \$1.9 billion of committed capital to bring seven projects to completion through to 2024. We are also setting a \$500 million target for additional committed capital in 2022.

**Slide 11**

I would like to now turn to what we do and how we do it through a different lens, our corporate purpose. As I go through these next few slides, I

hope you will agree that they capture the what, how and why of Capital Power. Our corporate purpose is “To power a sustainable future for people and planet”. We are truly one of the organizations that is actively transitioning our current energy systems to long term sustainability.

**Slide 12**

Our vision is “electrifying the world reliably and affordably while protecting the planet for future generations”. Key words for us in this statement are reliably and affordably which tend to be forgotten by many. Our mission is implementing and operating innovative energy solutions. This points to almost everything we do. And of course, our values which align with our purpose, vision and mission.

**Slide 13**

To truly resonate, these words need to be backed up by Capital Power commitments and actions. Like many organizations, we committed to be carbon neutral by 2050 but unlike many we have a pathway, and we are establishing targets along that pathway. We have an intermediate goal to reduce our carbon intensity by 65% by 2030. We have a near term goal, incorporated in our long-term incentive program for Capital Power leaders, to reduce our emissions intensity by 30% from 2021 to 2024. And we are committed to be off coal in 2023.

As a company we are committed to Diversity, Equity, and Inclusion. Our board and executive are already each over 40% women. We are also backing up our commitment to DEI with meaningful goals. Supporting our commitment to equal by 30, the corporation’s 2022 short term incentive program has a target of hiring 30% women. On an intermediate basis, imbedded in our leadership long-term incentive program, are targets to increase our diversity in the organization and women representation in leadership by 2024. In 2022, we are implementing both a water management strategy and a supply chain strategy which were developed in 2021. In respect of the supply chain strategy, we have already committed to the “solar industry forced labor prevention pledge”.

**Slide 14**

When we bring together our strong vision, our commitments to ESG, our historical performance, the significant lift in Alberta cashflow, our strategy and our outlook what does it mean for investors? We see a stable outlook that supports our credit ratings and continued dividend growth. Our natural gas fleet is very well positioned to generate strong cashflow through the decade. We have a strong balance sheet and significant short term and long-term development opportunities particularly on the renewable and storage front.

From an Alberta market perspective, we continue to be a leader. Our dispatchable facilities are and will continue to be the best positioned in the market. We are a leading developer of renewables in Alberta, and we have been the largest provider of new generation in the province over the last 20 years. Unlike other facilities in Alberta our facilities are thriving. When you further consider the addition of CCS to Genesee 1 and 2, our leading position in Alberta will extend for decades.

We have also significantly managed down several short and medium-term risks to Capital Power. Sandra will elaborate on hedging in the Alberta power market. She will also comment on our excellent CO2 emissions position as well as our substantially hedged natural gas position. Bryan will speak to the positive impact of higher sustaining capital expenditures in 2021 and 2022 on our medium-term outlook for reliability and lower sustaining capex beyond 2022.

As we bring together the strength of the contracted cashflows, our strong balance sheet, our near term committed investments, the Alberta market and our lower medium term risk profile, Capital Power management has concluded that providing dividend guidance of 5% growth per year out to 2025 is appropriate. 2025 being the first full year of Genesee 1 and 2 repowered operations. I will now turn it over to Kate.

**Slide 15**

Thanks, Brian and good morning. I’m here this morning to update you in more detail on Capital Power’s strategy and its ESG plans and performance.

**Slide 16**

As Brian said, we believe our corporate purpose succinctly captures our ambition to help Canada, the US and the world reach net zero while also safeguarding the reliability and affordability of our electric supply.

This purpose will be the prism through which we plan our growth over time and make other business decisions going forward.

**Slide 17**

Before we dive into Capital Power's strategy, let's address the elephant in the room - regulatory risk. At both COP26 and in their platform for the September election, the Trudeau Liberals demonstrated an intention to shift from passionate rhetoric into solid action. They said they're not willing to wait for other governments and they made a list of climate commitments, expressly emphasizing the important role the private sector will play in building and financing projects and specified that "market forces" should decide technologies. Surprisingly, for the first time in recent memory, there was absolute unanimity amongst all of Canada's five major parties about the urgency with which we need to address climate change in this country. In fact, the Official Opposition even complained about the Liberals' rather ambitious messaging being too vague.

Siting the facts that Canada is warming, on average, twice as quickly as the rest of the world and our north is warming three times as fast, Prime Minister Trudeau famously stated in Glasgow "The science is clear: we must do more, and faster...". Following this, Minister Wilkinson characterized his new infrastructure mandate as being to implement the federal climate plan in a way that ensures prosperity for each region of the country, maintains competitiveness and affordability for all Canadians and – this is a direct quote – "ensures affordable, sustainable, and reliable electricity for Canadians, maximizing opportunities for individuals, business, and regions across Canada." Capital Power is prepared and positioned well to succeed in this context. Of course, hope is not a strategy so let's delve deeper into exactly how we plan to power a sustainable future for people and planet.

**Slide 18**

These are the technologies that we'll include in

our toolbox to reach our net carbon neutral goal. The inner circle contains those core technologies that are currently in operation or under construction in our portfolio. The next or middle ring contains technologies to which we are currently dedicating resources with the intent of advancing them as part of our long-term strategy. The outermost ring illustrates other generation technologies we're continuously monitoring for risks to our strategy. As risks arise, we'll critically evaluate our strategy and adjust course as necessary but, at the moment, we believe the mix of wind, solar, natural gas with increasing abatement, and storage will make a good beginning to our decarbonization journey.

**Slide 19**

As we've told you before, we strongly believe that the inclusion of natural gas in our power system will continue to be absolutely critical to successful decarbonization. To be clear, the power grid doesn't need carbon emissions from its thermal power, but recent unfortunate events like frigid weather in Texas and Alberta and drought and wildfires in California and up the West Coast illustrate the importance of back up when the wind isn't blowing, the sun isn't shining, and water isn't flowing as freely as we'd like.

For example, in Alberta's record-breaking heat wave this summer, only eight of Alberta's more than 2000 MWs of wind was generating. I would be remiss if I didn't mention that all of those MWs came out of Capital Power's Halkirk windfarm. In spite of solar's 84% capacity factor, the total output from hydro, wind, and solar was only 571 MWs out of the province's total 3200 MWs of renewable capacity, for a capacity factor of only 18%. In non-power speak, this means that, on average, 82% of the power consumed in that period was from thermal sources.

In fact, all credible third party studies that look at deep decarbonization scenarios for the global power grid predict an ongoing role for natural gas for two reasons. Firstly, they confirm the necessity of some kind of extremely fast ramping and flexibly reliable back-up power, particularly as the penetration of intermittent renewables increases – especially seasonally. In some areas, batteries will be able to smooth intermittency for short



periods because they, like gas, can be dispatched and turned off instantaneously. They do so for short periods, however, so in areas subject to weather events that last more than a few hours, natural gas with CCUS is a more reliable, non-emitting long-term bet. Although it would perhaps have been easier for Capital Power to jump onto the “renewables-only” bandwagon and chase the historic multiples there, by continuing to pursue decarbonizing natural gas generation, we believe we are doing the right thing for people and planet – and our investors. Decarbonized natural gas will support system reliability by ensuring clean spinning reserve is always available to keep the lights on at a cost that avoids rate shock and energy poverty.

**Slide 20**

The second reason experts acknowledge the ongoing importance of decarbonized natural gas relates to the right-hand side of this slide, where you see the developing world’s demand for electricity growing and the proportion of coal and natural gas in its growing supply also increasing. The developing world can’t afford to research, develop and commercialize the tools necessary to decarbonize this part of their supply. The developed world will have to do this for them. Alberta, Canada and the U.S. will lead the CCUS part of decarbonization, becoming world leaders, and Capital Power hopes to be at the forefront of this movement.

**Slide 21**

We believe this is possible because Capital Power’s been working hard on emissions reduction and has conducted numerous CCUS FEED studies in the last 14 years. We completed our first of several buildable CCUS plans way back in 2009. Like the others, that project was entirely technically feasible but not economic in our competitive market at the time. You’re also aware of our 40% interest in C2CNT and our plans to build the Genesee Carbon Conversion Centre, to capture carbon from Genesee 3 flue gas and convert it into carbon nanotubes. In a few minutes, Steve will speak to you about the technical parts of our current and future carbon capture initiatives but let me first explain the high level intuitive linear logic to our plans.

**Slide 22**

Going forward, Capital Power’s strategy to decarbonize its natural gas is two-pronged. First, we believe, as does the International Energy Agency, that using existing technology will be the only practical way to ensure that we move the needle sufficiently before 2030 to contain global warming to below 1.5 degrees. By the time the energy industry has designed, permitted, financed and constructed the kind of infrastructure that will be needed to meet this 2030 goal, there won’t be any extra time left within which to development and deploy new technologies.

This brings me to our newest plans, which will be covered in more detail in Chris Kopecky’s and Steve Owen’s presentations. Specifically, pre-2030, we plan to repower Genesee 1 and 2 and convert Genesee 3 to gas. These projects will get us completely off coal by the end of 2023, a full six years earlier than required. When complete in the first half of 2024, the Genesee repowering and conversion projects will immediately reduce our emissions at Genesee by 3.4 megatonnes, while also increasing the plants’ generating capacity – providing more than 40% reduction in emissions from the Genesee site despite a more than 40% increase in generation capacity. Note that we’ll therefore be meeting our 2030 Genesee emissions reduction target in 2024, six years early. We forecast that this repowering investment will also have a further knock-on benefit of reducing the overall emissions from the Alberta power sector by another full megatonne as the increased cleaner capacity displaces higher-emitting units on the merit curve. All in all, repowering and conversion reduce Alberta power emissions by approximately 4.5 megatonnes per year right off the top.

Our first carbon capture and utilization or “CCU” project, the Genesee Carbon Conversion Centre, will capture some carbon from our Genesee 3 and convert it into carbon nanotubes that we hope to eventually sell to raise revenue that offsets the cost of capture. Specifically, we’re partnering with Lehigh Cement in the hopes that Lehigh can reduce its emissions by incorporating the carbon nanotubes into its mixtures. Eventually, post-2030, if enough demand can be created for the nanotubes from Lehigh and other downstream

industrial emitters, direct air capture units could become independently economic and earn offsets that can be applied to reduce the net emissions of our smaller natural gas generation. Next, we hope to capture the point-source CO<sub>2</sub> emissions from Genesee 1 and 2 and sequester them to further reduce our absolute emissions at Genesee by another 3 megatonnes per year. We hope to have shovels in the ground on this CCUS project by the end of 2023 for a COD by as early as 2026. That's about 7.5 megatonnes per year of emission reductions from these projects alone.

**Slide 23**

Once the Genesee 1 and 2 repowering, Genesee 3 conversion-to-gas and CCS projects are complete, Genesee will have the capacity to produce something like 10,000 to 11,000 gigawatt hours, or approximately twice the clean energy of Site C, enough to meet the entire Alberta residential demand. This production would be equivalent to about five times the energy of all Alberta hydro generation combined and equal to all the renewable energy generated last year. It is significant. I need to repeat for the climate geeks like me in the crowd that our Genesee decarbonization initiatives will reduce the emissions from Alberta's power sector by 7.5 megatonnes per year by as early as 2026. Management at Capital Power has done our best to reverse engineer the federal government's Healthy Environment/Healthy Economy Plan and our analysis suggests that it requires the Alberta power grid to go from 31 megatonnes in 2019 to 11 megatonnes in 2030. We further suspect that the Prime Minister's more recently announced ambition of 40 to 45% reduction by 2030 would require Alberta's power grid to go down to 9 megatonnes, rather than 11. If we're right about this, of the 20 megatonnes of Alberta power sector emissions that will be left after expected retirements and growth, Capital Power will deliver almost 70% of the remaining required reductions and at a relatively low cost to consumers. This is fully achievable and could produce relatively inexpensive reductions if we're able to get the necessary policy stability to support the long-term capital investments required.

**Slide 24**

Capital Power believes that a hierarchy of

emission reduction strategies have to be pursued to achieve net carbon neutral. First, point source emissions will be physically reduced, where feasible, through post-combustion capture or hydrogen blending. Depending on geology, available infrastructure and local regulatory policy, captured carbon will either be sequestered or converted into inert carbon products. Second, where emissions can't be captured at source due to technical, economic or social constraints, we'll pursue negative-emissions technologies such as direct air capture that allow us to capture and remove atmospheric CO<sub>2</sub> in quantities equivalent to those emitted by our smaller natural gas units and peakers.

Where emissions can't be reduced by any physical means, we'll procure certified offsets as a last resort to achieve net carbon neutrality. Some of this, like the direct air capture might sound pretty far out to you but we've already produced carbon nanotubes using the C2CNT technology at our Shepard plant so the challenge for us in producing carbon nanotubes is not technological. We already know we can do it. It's purely financial. Without a CO<sub>2</sub> point-source, there is no carbon tax avoidance to boost the economics, so we need to establish that market for carbon nanotubes or other products made from them to raise revenue to cover the costs.

**Slide 25**

So, this is what all of the component parts of our corporate strategy add up to. As you can see, we're living up to our purpose of "powering a sustainable future for people and planet" and there is no difference between Capital Power's sustainability strategy and its long-term business plan. They are indeed one and the same.

**Slide 26**

Of course, we're understandably proud of our performance in the S and G parts of ESG as well. In addition to once again being the only energy and utility company in Canada to be named one of the world's most ethical companies by Ethisphere, we are really proud of hitting the lights out in respect of diversity on our board and executive and of our COVID-19 efforts, which Bryan DeNeve will explain in more detail.

We're also committing to improve gender diversity across our workforce by strengthening our 30 by 30 and Equal by 30 commitments with our new Rosie the Riveter campaign. The 30 by 30 initiative is aimed at raising the percentage of newly licensed engineers who are women to 30% by 2030 from where it is now and has been for awhile - 18%. Equal by 30 is a public commitment by public and private sector organizations to work towards equal pay, equal leadership and equal opportunities for women in the clean energy sector by 2030. The Rosie Initiative, which we're leading along with OPG and the Prosperity Project, encourages Canadian women to join, re-join or stay in the workforce and be equal contributors to Canada's economy.

**Slide 27**

We're also very pleased and proud to tell you that, in 2022, our compensation structure has been changed to better align it with the sustainability parts of our corporate strategy. Like last year, 25% of executive short term performance measures are ESG-related. You can see here that they're all focused on making our workplace more inclusive and improving the sustainability and resilience of our operation.

New for 2022, we've included workforce diversity and emission reduction measures into our executive and leadership long-term incentive program. We used performance share units for this purpose because they reflect our actual performance, unlike options – which are primarily determined by total shareholder return and can therefore be affected by capital market factors. Tying leadership's pay directly to our mid-term performance on these important issues makes sense since both issues are so important to our success going forward.

**Slide 28**

Capital Power has been a leader in sustainability reporting, having integrated our reporting earlier than most of our peers and planning to release our fourth consecutive TCFD-based climate change report next spring. Of course, we welcome the clarity, uniformity and convergence that will be brought to sustainability reporting by the new International Sustainability Standards Board because it will finally allow us to be

compared on an apples-to-apples basis with our peers.

**Slide 29**

Getting down to our targets. First, and foremost, we're on track to meet all but one of our ESG commitments. We'll meet or beat all of the 2030 and 2050 emission reduction targets we've made to you and our shareholders and we're continuing to pursue a strategy of growing our portfolio of renewables – both solar and wind – by employing a range of commercial structures and risk management approaches, including long-term PPAs that bolster and lengthen our contracted cashflow, hybrid REC/energy contracts and merchant facilities.

Given that we're developing seven new renewable facilities in Alberta and North Carolina, I often get asked why there's no specific performance metric on our renewable build out. Of course, my response is that, given our ambitious growth ambitions, increasing renewable capacity is a critically necessary component of all of our 2030 and 2050 intensity targets. Chris Kopecky will expand on our plans for growth in renewables.

**Slide 30**

All of this fits together into our corporate strategy very nicely. It's all about implementing and operating innovative energy solutions to electrify the world reliably and affordably while protecting the planet for future generations.

**Slide 31**

As you can see, Capital Power's strategy is designed to ensure that we live up to our purpose of "powering a sustainable future for people and planet". Now, I'll turn it over to Chris Kopecky.

**Slide 32**

Thank you Kate. Good morning, I'm excited to speak with you about Capital Power's growth plans. Before getting into details, I will highlight the main points I'd like to leave you with today. First, decarbonization is an immense opportunity, for the build out of renewables and for well positioned, efficient natural gas units. Second, Capital Power's growth strategy is unchanged, we enjoy a robust pipeline of opportunities and are well positioned to meet our committed capital and total shareholder return targets. Finally, Capital

Power remains the market leader in Alberta. Today I'll provide details around our plans for additional investment in Alberta.

**Slide 33**

We continue to target \$500 million per year of committed capital. Since 2017, we have averaged more than \$1.1 billion of committed capital per year with approximately \$2 billion allocated to renewables during that period, \$2.5 billion for the acquisition of strategically positioned natural gas assets and \$1.2 billion committed to repower Genesee 1 and 2 and install a 210 MW battery. In 2021, we have committed \$469 million between the Halkirk 2 wind project and the 210 MW battery installation at Genesee. I will discuss the final configuration of the repowered Genesee 1 and 2 units and battery in more detail later. Our disciplined and consistent growth illustrates the strength of our strategy combining renewables growth, accretive mid-life gas acquisitions and investments to optimize and decarbonize our existing assets. Consistent growth has enabled Capital Power to achieve our targeted total shareholder return of 10-12%.

**Slide 34**

Decarbonization represents a huge investment opportunity. Across North America, despite significant increases in renewable generation, coal continues to represent a large portion of the total installed capacity, particularly in the United States. Over 200 gigawatts of coal remain on the North American grid, much of which operates at high-capacity factors. In 2021, coal accounts for nearly one quarter of the total electricity generated in the United States. The imperative to replace this reliable and dispatchable, but high emitting generation, with cleaner technologies creates an immense opportunity for investment.

**Slide 35**

The EIA forecasts that 95 gigawatts of coal will be removed from the system by 2030. Gas, wind, solar and storage will be the key technologies to replace coal. Between now and 2030 the EIA estimates that 240 gigawatts of new generation will be added in the U.S., including 115 gigawatts of solar, 65 gigawatts of wind and 59 gigawatts of gas. The deployment of battery storage is expected to continue to accelerate throughout the decade. We expect that CCUS technologies will

also play an increasing role in the energy system as both Canada and the United States seek to meet their emission reduction targets.

**Slide 36**

Capital Power's focus remains unchanged. Consistent with our strategy to incorporate new technologies over time, we have moved storage into our core technologies as we would expect to do with CCUS in the future. We will continue to invest in wind and solar underpinned by long term power purchase agreements. We are looking at opportunities to integrate storage at our existing sites as well as into our pipeline of development opportunities. Finally, we continue to seek opportunities to invest in strategically positioned, contracted mid-life natural gas assets in markets with strong fundamentals supporting recontracting. Through optimization activities, we increase value and position our assets for recontracting or repowering.

**Slide 37**

Capital Power's growth since 2012 has come via a mix of acquisitions of renewable and natural gas assets and the development and construction of renewable projects. During that period, we have added seven gas facilities and 10 renewable facilities, eight of which Capital Power constructed. Together these assets are forecasted to contribute \$731 million of EBITDA in 2022.

**Slide 38**

We continue to add new renewables generation. Whitla 2 and 3 recently achieved COD increasing our North American renewables fleet to almost 1,400 MWs. We have an additional 426 MWs in advanced development including the Halkirk 2 project announced today. The Strathmore solar project, which has a 25-year contract and the Enchant solar project, which is partially contracted for 15 years, both solar projects will reach COD in 2022. In the U.S., we continue to advance the 160 MW portfolio of solar projects in North Carolina underpinned by 20-year PPAs. COD on those projects is now expected in Q4 2023 or Q1 2024 as a result of delays in the offtaker's interconnection process.

**Slide 39**

Today we announced that Halkirk 2 will be proceeding with an anticipated COD in Q4 of



2024. The project, developed by Capital Power, is adjacent to our existing Halkirk project and has been previously approved by the Alberta Utilities Commission. We will be amending the project approvals to incorporate new, larger more efficient turbine technology, which will reduce the number of turbines significantly and shrink the project's footprint. The project will add 150 MWs of new generation at a capital cost of \$274 million. Halkirk 2, like the initial Halkirk project is in an area in Alberta that enjoys a differentiated wind resource, resulting in higher expected capture prices than wind projects located in southern Alberta. The project has been approved on a merchant basis, but Capital Power will be marketing both power and renewable attributes to commercial and industrial customers seeking renewable power to support their operations in Alberta and across Canada.

**Slide 40**

This morning we announced a significant expansion of our solar and storage development pipeline. Capital Power has entered into an agreement to acquire a substantial portfolio of solar development sites in the U.S. representing approximately 1,300 MWs of solar capacity, with the potential to co-locate over 1200 MW hours of energy storage.

The portfolio is comprised of excellent development sites located close to interconnection and most have existing queue positions. This acquisition significantly increases our opportunity set and provides scale that will allow for effective negotiation with panel suppliers, other equipment suppliers and EPC contractors. Building off of our success with corporate customers in Alberta, we will be increasing our origination efforts. We expect sites from this acquisition to begin reaching COD as early as 2024.

**Slide 41**

As this map illustrates, our pipeline of development sites is significant and includes wind, solar and storage opportunities as well as strategic expansion of existing gas assets. The nearly 4-gigawatt pipeline includes more than 1300 MWs of opportunities in Canada and over 2500 MWs in the United States. We have

approximately 3000 MW of renewable projects and continue to pursue opportunities to increase our renewable pipeline. We expect to be adding significant additional length in the coming months both in Canada and the United States. Given our pipeline and our track record of development success, Capital Power is well positioned to meet and exceed our \$500 million annual committed capital target on an ongoing basis.

**Slide 42**

I am now going to spend a few minutes talking about our natural gas strategy. Although we anticipate most of our development activity to be focused on wind, solar and storage projects, we expect to continue to grow through accretive midlife gas acquisitions targeting strategically located assets in markets with strong fundamentals. As a strong operator we expect to optimize and add value to our assets positioning them for recontacting opportunities. All of our assets are well positioned on the grid with existing interconnection infrastructure making them ideal sites for battery deployment. Our expectation is that our natural gas assets will continue to operate through their useful life, providing an option to repower them in a carbon free manner either through storage, repowering to utilize hydrogen or other technology to capitalize on the valuable existing site infrastructure and interconnections.

**Slide 43**

The Decatur Energy Centre is a good example of our natural gas strategy in action. We acquired Decatur in 2017 with approximately five-and-a-half years of remaining contract life. At the time we recognized that the market was evolving but the dispatchable, flexible natural gas capacity would continue to be needed as coal was retired. Post-acquisition, we've upgraded the three gas turbines adding approximately 90 MWs of additional capacity and lowering the plant's heat rate. The combination of these upgrades increased the overall attractiveness of the facility and allowed us to leverage our strong relationship with the customer to secure a 10-year contract extension through 2032.

**Slide 44**

Our Arlington Valley facility, which we acquired in 2018, is located in the U.S. Desert Southwest, a

region that continues to experience high population and load growth. At the same time, the region faces multiple coal retirements and capacity reductions over the next decade, while also incorporating a significant amount of new renewable generation. Regional transmission issues increased the need for reliable, dispatchable local capacity. The facility's strategic interconnection near Palo Verde offers significant optionality, allowing for sales to many potential customers as well as the potential to wheeling to CAISO. We're seeing a multitude of RFPs from Utilities in the region, seeking reliable, dispatchable gas-fired generation to address reductions in baseload coal capacity, meet higher load and help with the integration of renewables. These utilities are facing the reality of the new gas generation it's unlikely to be added. All of these forces enhance Arlington Valley's attractiveness. We are participating in RFP processes and are more bullish on recontracting than we were when we acquired the asset.

#### Slide 45

In Ontario, our thermal fleet is very well positioned. The IESO recently published a report that concluded that a phase out of natural gas by 2030 is nearly impossible, would cost \$27 billion and still not ensure reliability. There is a looming capacity gap in Ontario, and it is growing. Another recent IESO report indicated that if all of the existing gas assets in Ontario were recontracted there would still be a substantial capacity gap. Given this situation, we expect our current assets to be recontracted and see opportunities to add additional capacity either through incorporation of batteries or additional natural gas capacity. We are leveraging the strategic location of our existing assets, available land and electrical interconnections to develop 210 MWs of storage with four hours of duration. We anticipate a long-term RFP for new resources as early as 2022 and will be actively participating.

#### Slide 46

Capital Power's Island Generation facility has provided reliable power to Vancouver Island and the lower mainland of British Columbia for almost 20 years. Although the facility runs infrequently it is there and available when needed. On the graph, the facility's generation over time is

depicted by the green line and the gray line shows the annual capacity factor for the period between November 2018 and August of this year. Historically, the facility's capacity factor has been low similar to 2020 where the capacity factor was approximately 3%.

However, when there is a need, Island Generation is available to provide reliable generation. In years like 2019 and 2021 when BC Hydro faced significant challenges, Island Generation operated at higher capacity factors and helped to keep the lights on. Given this history, we were surprised and disappointed by BC Hydro's draft Integrated Resource Plan, issued in June, that indicated an intention not to renew the power purchase agreement. Outages on the underwater transmission lines that bring power from mainland BC to the Island began shortly after the draft IRP was released. Those lines were down for 90 days this summer and Island Generation operated on 69 of those days. Without that generation, there would have been significant curtailments and blackouts. We are currently discussing a potential contract extension of 4 years to facilitate BC Hydro's work on the transmission lines to the Island. However, we strongly believe that prudent resource planning dictates that Island Generation should be recontracted for 8-10 years and will be advocating for a longer contract extension during the BCUC's process to review and finalize the BC Hydro IRP. Island Generation is a valuable reliability resource and is necessary to avoid curtailments and blackouts.

#### Slide 47

Turn to Alberta where Capital Power remains the market leader. We continue to invest in Alberta. Between 2015 and 2024, Capital Power will have invested more than \$3 billion for projects in Alberta including the combined cycle Shepard Energy Centre, 500 MWs of wind across four facilities, and 115 MWs of solar at two facilities, followed by repowering of Genesee 1 and 2 and 200 MW of battery storage. Capital Power currently owns over 2,600 MWs of generation in Alberta and we have announced projects which will add another 826 MWs. By 2024, the repowered Genesee 1 and 2 and conversion of Genesee 3 to natural gas, will result in an annual reduction of 3.4 megatonnes of CO<sub>2</sub> at Genesee.

Since market inception, our average captured price has been over 15% higher than spot prices smoothing the natural volatility that occurs in the energy-only market and ensuring cash flow and earnings consistency and stability through time. Leveraging our best-in-class portfolio management and customer business, since November of last year we have been successful in executing three long term PPAs with investment grade corporate customers.

**Slide 48**

Beyond securing long term PPAs, Capital Power's Energy Marketing business is an important part in the management of our Alberta portfolio. Typically, 20-25% of our portfolio is hedged with a variety of end-use customers. This business creates longer term hedges and provides opportunities to combine commodities to meet the needs of our customers. Examples from this past year include the execution of long-term renewable supply agreements for the sale of energy and environmental attributes from our Whitla Wind facility and Enchant Solar projects. Each of these 15-year agreements align fully to our customer's clean energy goals and support Capital Power's continued development of renewable generation. Another example is the execution of commercial arrangements with Alberta natural gas producers. As Capital Power transitions off coal, our need for competitively priced natural gas continues to grow. We have entered into bi-lateral commercial arrangements with various natural gas producers, supplying them with competitively priced electricity and securing competitively priced natural gas.

**Slide 49**

Alberta appears to have fully recovered from the COVID-related load decrease in 2020. In 2021, the market has seen new record summer and winter demand peaks. Despite not yet fully reopening, load remains strong today and is expected to continue to increase modestly year over year.

**Slide 50**

The Alberta supply stack is changing significantly as carbon prices rise, coal units are retired or converted to natural gas and as renewables continue to be developed. We anticipate that renewables build will continue, and Capital Power

will be part of the buildout, but it is clear that efficient, responsive and dispatchable natural gas generation is essential to the grid. In 2021, the peak winter load hour and the peak summer load hour, both saw thermal generation providing approximately 85% of total generation while wind and solar resources were running at capacity levels in the 12-19% range. As Kate noted natural gas is essential because even though more renewables are built, these resources will not always be available when the system needs them. Efficient, well positioned, responsive gas generation will provide critical capacity as carbon prices rise and coal and converted units continue to be forced to the top of the merit order and into retirement.

**Slide 51**

The next three slides are intended to demonstrate the fundamentals of the Alberta market, explain recent market developments and show how we expect the market to continue to evolve. The slides consist of a line chart showing an approximated Alberta supply stack based on our estimates of the variable costs for key assets. A table on the right of each slide includes retired units as well as Capital Power's projections for additional unit retirements, as units become uncompetitive. In the line charts, the y-axis represents estimated variable costs, with the lowest costs at the bottom. The x-axis represents cumulative capacity available to the market increasing from left to right.

The initial chart is the merit order in 2020. Since its COD, Shepard has been the most efficient gas generation plant that is not a cogeneration asset, followed by the supercritical Genesee 3 asset and the Genesee 1 and 2. Above Capital Power's Genesee assets, there is nearly 4,500 MW of higher cost capacity. The retired assets in this slide have recently been retired or mothballed. While our existing thermal assets are relatively low cost and very competitive, the repowering of Genesee 1 and 2 will position Capital Power even more strongly for the future.

**Slide 52**

Looking at 2022, notice a few changes. First, the curve shifts up as costs rise for all units due to increasing gas and carbon costs, with costs for

less efficient units rising more than the costs of more efficient units. Second, the \$0 dollar portion of the curve grows as more renewables are added. Finally, more units retire as their economics become challenged, which is a continuation of a theme we have observed over the past few years under Alberta's TIER program. Those assets with more exposure to carbon prices because of higher carbon emissions and less flexibility are forced higher in the merit order or into retirement.

**Slide 53**

Looking at 2025, we see the impact of the Genesee repowering. Genesee 1 and 2 moves to the front of the dispatchable portion of the stack. Given their efficiency and low carbon intensity, Genesee 1 and 2 are the least exposed thermal unit to rising carbon and gas prices. With new supply additions, the curve again shifts to the right and once again, older, less efficient converted coal units get pushed further out of market. There remains 3,000 MWs of converted coal at the higher end of the supply stack, many of those units will be increasingly challenged and many more will retire. The efficiency and flexibility of the repowered Genesee 1 and 2 units positions them to continue to thrive.

**Slide 54**

As illustrated by the preceding slides, Alberta's TIER Program is working causing the supply stack to evolve as many coal units have been retired, and all others have been or will be shortly converted to natural gas, representing a very meaningful step in the decarbonization of the Alberta grid. The TIER program is delivering large carbon reductions faster than many had predicted, hence the continued support for the program from the Alberta government. To-date, the electricity sector has already reduced its emission by 21.5 megatonne and appears on track to reduce its emission by 39.3 megatonne by 2030. In 2022, Alberta's TIER framework will undergo an equivalency assessment. We expect it to be found equivalent and the framework to be maintained from 2023 to 2030. Capital Power's portfolio is well positioned to respond to both rising carbon prices and tightening intensity standards. Carbon capture at Genesee would lead to an additional 3 megatonne reduction in

carbon emissions beyond the 3.4 megatonne annual reduction following conversion of Genesee 3 and the repowering of Genesee units 1 and 2.

**Slide 55**

Since we announced the Genesee 1 and 2 repowering last year, we have continued to refine the project design. Steve will provide an update on the status of the project from a construction and timing perspective. I'd like to take a few minutes to update you on the configuration and project economics. When we announced the project, we recognized that the AESO's Most Severe Single Contingency (MSSC) limit of 466 MWs would have to be addressed either through a technical modification to our units or by the AESO raising the MSSC, or a combination of both. Although the AESO has launched a process to review the MSSC issue there are currently no plans to increase the MSSC to a level that would allow each of the Genesee 1 and 2 units to operate at their full capacity of 669 MWs.

We determined that the optimal solution to solve the MSSC issue was the installation of a 210 MW battery with one hour duration to ensure that the units can operate at full capacity. The addition of the batteries will increase the project capital cost by \$195 million from \$997 million to \$1.19 billion. We are continuing to work through details of the interconnection of the batteries with the AESO and are targeting an in-service date of December 2023. When we announced repowering last year, we indicated that we anticipated levered returns in excess of 20%; we continue to expect the levered returns from the repowering project to exceed 20%, as the increased costs associated with the battery are more than offset by expected stronger market fundamentals relating to additional retirements and deferral of planned projects, increasing carbon costs and strengthening prices. The current economics are conservative, they include no value for potential alternative uses of the battery to provide ancillary services or to capture arbitrage opportunities in the event that AESO increases the MSSC or makes other tariff modifications. The repowered units will be the most efficient in Canada and are very well positioned in the Alberta market.

**Slide 56**



Repowering of Genesee 1 and 2 is a key step in our decarbonization journey. As noted, the repowering of Genesee 1 and 2 and conversion of Genesee 3 to gas reduces emissions at the site by 3.4 megatonnes per year. The repowered units will be the most competitive gas plant on the system which will benefit Capital Power and Alberta for decades to come. But there is more to Genesee than just a best-in-class gas plant. Capital Power is planning to implement post-combustion capture at the site to capture 3 megatonnes of CO<sub>2</sub> annually. We are deploying a 210 MW battery on the site. We also continue advanced plans for the Genesee Carbon Conversion Centre and expect to proceed with that carbon capture and utilization project after securing regulatory approvals, refining the manufacturing process and securing customers for the project's carbon nanotubes. In addition, we continue to pursue a fly-ash processing facility which will provide another revenue stream. The site is 5,000 acres of flat farmland and could potentially be used for solar and additional battery installations in the future. Given all of the activity and the potential at the site, we expect that the Genesee Energy Centre will be the heart of Alberta's decarbonized future.

**Slide 57**

Across the globe, accelerating net zero plans make CCUS a necessity, not an option. Both the Federal Government and Alberta Government have acknowledged the importance of CCUS as a critical technology for achieving long-term climate objectives. Federally, this was acknowledged in the December 2020 "Healthy Environment and Healthy Economy Plan" as well as in the 2021 Federal Budget. Alberta's support was reflected in the CCUS Strategy it developed in early 2021 and that formed the basis for its request for \$30 billion in Federal funding to explore CCUS, and also underpins the CCUS Hub framework under development. The recognition by both governments of CCUS' importance is also reflected in the joint Alberta-Canada Carbon Capture, Utilization and Storage (CCUS) Steering Committee that was announced in March 2021. As Prime Minister Trudeau recently stated, "The Government is taking real action to fight climate change. Now, we must go further, faster." In the US, President Biden has specifically identified

CCUS as an important solution to accelerate the transition to net-zero by "leveraging the carbon pollution-free energy potential of power plants retrofitted with carbon capture."

The strengthening of climate goals is refocusing attention on CCUS technologies because they provide a realistic pathway to achieve societies' carbon mitigation goals utilizing available and proven technology. The IEA Roadmap to Net Zero by 2050 envisions CCUS growing to 7.6 billion tonnes of CO<sub>2</sub> per year by 2050. Closer to home, RBC Economics suggests in their "Canada's Road to Net Zero" report that 76 megatonne of CO<sub>2</sub> could be eliminated from Canada's energy sector with a \$12.5 billion investment in CCUS.

And Pembina Institute has opined that "Most credible scenarios to achieve the necessary rate of decarbonization require widespread deployment of carbon capture, utilization and storage". CCUS technology deployment in the power sector makes use of existing infrastructure, and allows for non-emitting, reliable and dispatchable solutions.

**Slide 58**

New business models are emerging that will enable CCUS deployment with the focus shifting from large, standalone facilities, to the development of industrial hubs to share CO<sub>2</sub> transport and storage infrastructure, creating economies of scale, helping to reduce commercial risks and ultimately accelerating the technology's advancement. According to the IEA, approximately 40 hubs are progressing in the world today. Currently, the Alberta government is seeking to award carbon sequestration rights through a competitive process for the development of carbon storage hubs. As announced earlier this week, Capital Power is partnering with Enbridge to support Enbridge's proposal for a carbon hub in the Wabuman area.

**Slide 59**

The investment environment for CCUS is also improving rapidly as momentum builds for the technology, reflecting the recognition by governments that CCUS has to be a part of the technology tool kit. Policies targeting the advancement of CCUS are necessary to

accelerate its deployment, and we are seeing mounting evidence that this momentum will continue to build.

The 45Q tax credit in the U.S. is a prime example, making CCUS an increasingly viable option. The proposed budget reconciliation bill includes measures that will enhance the effectiveness of 45Q building on the policies supporting CCUS that were included in the bipartisan infrastructure legislation.

In Canada, the Federal government announced plans for an investment tax credit similar to 45Q in its 2021 budget and has earmarked \$15 billion for the credit. The Federal Government has also committed \$319 million towards increasing the commercial viability of and accelerating the deployment of CCUS technology. The Canada Infrastructure Bank has a \$10 billion growth plan, a portion of which is dedicated to cleaning the energy sector. Provincially, the Alberta government has a track record of supporting CCUS projects and has committed \$1.24 billion for two projects that are currently operating. In addition, the Alberta government recently announced \$100 million in TIER funding to support the development of CCUS projects. Capital Power is actively engaged with the both the Federal Government and the Government of Alberta in connection with their CCUS policy development efforts.

**Slide 60**

Net zero commitments, enhanced business models, improvements in the investment environment and strong government support make this the right time to pursue post-combustion CCS at Genesee. We plan to utilize proven amine-based technology to capture 3 megatonne of carbon from Genesee 1 and 2 per year, beginning as early as 2026. Assuming Enbridge is a successful proponent, the sequestered carbon would then be transferred and stored by Enbridge. Our carbon capture pre-FEED study is nearing completion with positive results. A full FEED study is scheduled for 2022.

The project's preliminary economics are promising but will require some government support. The expected capex is \$1.8 to \$2.0

billion. Concessionary lending from CIB, coupled with a 45Q style investment tax credit in the range of \$60 to \$70 per captured tonne of CO<sub>2</sub> would allow the project to proceed. The project represents a significant investment.

CCS at Genesee would accelerate progress towards Alberta's and Canada's 2030 goals and achieve a step change in Alberta's power sector emissions in the middle of the decade. Most importantly, it is the lowest cost way to decarbonize baseload generation in Alberta utilizing existing, proven technology. As Kate noted, generation from a decarbonized Genesee would be twice the expected annual generation from Site C and could power all the residential load in Alberta.

**Slide 61**

We are excited about the work that we are undertaking to position the Genesee Energy Centre for the future. This 3D rendering provides a glimpse of what the site may look like in the years ahead. The combination of repowering, batteries, the Carbon Conversion Centre and CCUS provides the potential for substantial growth and positions Genesee as a critical piece of Alberta's energy transitions. The well-situated Genesee Energy Centre will be the heart of Alberta's decarbonized energy future.

**Slide 62**

As I noted at the start, decarbonization is an immense opportunity for Capital Power. With a robust pipeline of opportunities and deep expertise, Capital Power is well positioned to play a significant part in the decarbonization of power generation in North America to power a sustainable future for people and planet. We will now take a five-minute break before Bryan Deneve's presentation.

**Slide 63**

Good morning. I'm going to speak to the operational excellence and resiliency that we continue to achieve at the facilities we operate at Capital Power. I will also speak to the optimization and innovation behind the deployment of our long-term operations strategy.

**Slide 64**

Capital Power has ownership in 25 operating generation facilities across North America. Two

of these facilities, Joffre and Shepard, are operated by our JV partners Heartland and Enmax. The breakdown is 14 thermal generation facilities and 11 renewable facilities. Sixteen of the facilities are located in Canada with the balance in the U.S. The operations team is supported by a number of centralized corporate functions which are primarily located in Edmonton.

**Slide 65**

Capital Power deployed a detailed pandemic plan that was first activated in March 2020. In many instances, the COVID-19 protocols put in place under the Plan exceeded those put in place by government agencies. Through these efforts, there has been minimal COVID-related impacts to our operations and construction activities, and no transmission of infection at any Capital Power operated site.

Capital Power continues to require proof of vaccination or a negative rapid test result to enter any of our operated facilities. Capital Power also continues to use UV technology to sterilize our control rooms. The relationship with a dedicated medical partner, Medcan, has proven to be an invaluable resource to the Capital Power team by providing credible and independent information in developing our protocols. As a result, there has been very little change to our COVID-19 protocols and procedures since they were established.

Finally, the commitment by site leadership to ensure COVID protocols were known, understood, and followed cannot be underestimated. Initiatives such as the vaccine townhalls, COVID protocol focused inspections, and rapid test programs would not have been successful without site leadership demonstrating visible support and commitment.

**Slide 66**

Genesee 2 experienced a generator failure last July which led to a 4.5-month outage. In order to optimize the outage time, Management accelerated the LP turbine upgrade project previously planned for 2023. The installation of the high efficiency LP rotor will allow operations to take advantage of the improved efficiency earlier than expected.

Our insurance coverage will provide for costs to complete the replacement less a \$2 million deductible and the business interruption portion will cover lost revenue beyond a 60-day wait period. Parallel to the installation of the replacement generator we are dismantling and completing a root cause failure analysis on the nature of the failure. It is anticipated that we will rebuild the damaged core with appropriate upgrades to have it installed in Genesee 1 as part of repowering in 2023. Since the generator stators at both Genesee units will essentially be brand new as of repowering, with the original design defect addressed, they will provide reliable service over the life of the repowered units.

**Slide 67**

Capital Power historically has had strong operational results with average fleet availability exceeding 93% over the past three years. The target availability for 2022 is 93% consistent with historical performance. The planned maintenance work completed in 2021 included the Genesee 2 major maintenance outage, Arlington combustion turbine major, Decatur steam turbine major, Goreway balance of plant outage and York combustion turbine minor. Successful completion of these outages will enable our facilities to continue to meet target availability performance.

**Slide 68**

Forecast O&M costs for 2022 are \$20 million lower than the target for 2021 despite the additional O&M expense associated with the Whitla expansion and new Strathmore solar facility. The reduction is due to the retirement of the North Carolina facilities; lower exchange rate on U.S. O&M expenses; reduced headcount at Genesee in preparation for repowering and the impact of reduced expenses as the new LTSA comes into effect at our wind facilities. On a dollar per kW basis, the O&M expense is forecast to decline by more than 10% from \$49/kW to \$44/kW.

**Slide 69**

The target sustaining and shutdown capital costs for 2022 is \$110 million. The shutdown capital includes major outages at Genesee 1 and 3, a major outage at CBEC 1 and a steam turbine outage at Goreway. The scope of the

maintenance outage at Genesee 1 has been reduced given the unit is being repowered, however the total shutdown costs for Genesee are \$38 million compared to \$12 million for Genesee 2 in 2021. The major outage at Genesee 3 continues to include full boiler scope given the boiler will continue in service on a natural gas basis post 2023.

During the hot gas path at Arlington, a crack was found on a turbine wheel requiring immediate replacement. To minimize outage time and ensure unit availability for the upcoming summer toll, a refurbished rotor was procured in short order for immediate installation. With a completed rotor replacement, the hot gas path was upgraded to a major inspection. With the gas turbine one major inspection done, the cost and outage duration of the next planned maintenance interval will be materially reduced. Additionally, the refurbished rotor is expected to last to the end of plant life, offsetting the rotor replacement that was originally planned for 2025.

The average sustaining and shutdown capex is forecast to decline to \$55 million and \$69 million for 2023 and 2024, respectively which is materially below the historical annual run rate. This is the result of there being no major outages scheduled for 2023 and Genesee 1 and 2 shutdown costs now coming in the form of annual LTSA charges of \$15 million per year commencing 2024 versus the lumpiness of large maintenance outages every three years as coal fired units. In 2025, the shutdown costs increase given the major outage at Genesee 3, higher LTSA costs at Goreway due to increased generation and combustion turbine outages at Arlington. Post-2025, shutdown capital is expected to average approximately \$80 million to \$85 million per year.

#### Slide 70

The Renewable Operations Center has improved our ability to investigate individual turbine performance data and identify situations such as a broken nacelle anemometer, turbine power curve derates, control algorithm anomalies and equipment temperature deviations. This has enabled the operations team to take corrective actions much sooner than before. In 2020, Capital

Power negotiated a 10-year extension of the Long-Term Service Agreements at our Vestas-equipped facilities. In addition to a lower cost of approximately \$8 million per year across the nine Vestas sites, the new LTSA contains improved incentives for Vestas to ensure turbine availability during higher wind periods.

Capital Power has also implemented a more systematic blade repair program. Working with our data analytics team, third party blade experts, turbine service contractors, we have been able to identify issues much faster and do so more frequently, thus saving us time and physical effort while improving safety, output and reducing associated costs. Using drones also allow us to inspect damages much faster and to do so more frequently, thus saving us time, physical effort while improving on both safety and output.

#### Slide 71

A cold weather standard for Buckthorn is required by December 1, 2021, by the Texas Public Utilities Commission. We are on track to meet the submission deadline and expect this work to support the larger NERC Cold Weather Standard for the remainder of renewables fleet. The following steps are being taken to ensure facilities meet new NERC Cold Weather Standards with an effective date of April 1, 2023. Actively working with regulators and industry to implement the new compliance monitoring and oversight requirements. Development of Cold Weather Plans for each applicable site based on regional specific weather conditions and design parameters. Identifying the typical modes of failures under cold weather, root causes, and countermeasures for the type of generating facilities under question.

#### Slide 72

Capital Power conducted an assessment in 2018 to identify the material sustainability-related priorities for our business. Water management and sustainable sourcing were identified as areas of growing importance. In line with our corporate purpose, Capital Power has developed and received board approval of strategies relating to both issues in 2021. We will look to execute on these in the coming years to enhance our resiliency and the sustainability of our operations.



Our water management strategy focuses on enhancing the measurement and monitoring of water resources in our operations to ensure we continue to capture opportunities to improve our efficiency and respond to risks. An example of an improvement in water management is our initiative at Arlington Valley. When we first took ownership of the facility in late 2018, we worked closely with the plant to reduce blowdown to the evaporative ponds by more than 20%. We are also looking for ways to optimize water use, the plant identified a different chemical for their water treatment process. Simply put, use of a different type of lime resulted in a reduction in chemicals used, less waste produced, a reduction of water used by 6.5 million gallons per year and an estimated savings of \$200 thousand per year in O&M costs.

#### Slide 73

We also see opportunities across our supply chain in our sourcing. Our sustainable sourcing strategy is built around environmental, social and governance principles. By focusing on these principles in our supply chain, we believe we can reduce the overall environmental impact of our operations, while respecting human rights, supporting diversity and enhancing overall resiliency of our business. As we execute on these strategies over the coming years, we're confident we'll continue to enhance shareholder value while improving the sustainability of our operations.

#### Slide 74

Ops2030 was implemented to ensure we are taking a longer-term view to improving our operations. These projects are long term in nature and ensure we aren't just focused on short term improvements. A key theme is ensuring we are moving to condition-based maintenance from time-based maintenance. The projected capital expenditures on Ops2030 over the next decade is \$40 to \$50 million. Given a lot of these projects are expected to have relatively quick paybacks, it is projected that there will be a \$50 million increase in annual EBITDA by 2030. The aggregate return on the projects is an expected IRR of approximately 15%. Our path forward for Ops2030 paints a picture of our future, not only for the next decade as 2030 tends to imply but

even beyond that into the next two decades. The three primary attributes of the program are integrated, autonomous, and sustainable.

Integration in the short term focuses on upgrades to our PI Historian and advanced pattern recognition. Longer term, we continue to expand data sources, leading to full plant digitalization and more complex analytics to make better and quicker decisions. We will see autonomy of processes and systems through tools such as augmented reality and robotics. Today, we have already begun to automate plants processes like operating rounds, remote dispatch of our simple cycle plants and the Renewables Monitoring Diagnostics centre, currently in place within EMOC.

Our sustainability journey will look to build on our track record of continuous improvement and ways to reduce the impact of our assets on the environment, optimize our performance, and increase internal capacity. In the long term, we envision an increased need for operational and fuel flexibility; for example, many of our gas facilities were designed for baseload operations. Markets will demand us to ramp quickly, operate at lower loads than designed. So here lies an opportunity – while running our machines differently, we can reduce carbon emissions, water consumption and cost, and operate beyond original design specifications.

#### Slide 75

This slide summarizes the initiatives that the Ops2030 program has achieved so far. Some of these initiatives like the standardization and redeployment of PI is foundational in nature, an enabler to condition-based maintenance down the road. The following are specific examples of the Ops2030 initiatives that are being pursued over 2022. We are moving ahead earlier than planned on our use of Advanced Pattern Recognition. With machine learning, this technology uses complex algorithms to process large data sets with known desired outcomes. Over time, it uses historical process data to learn and predict the optimal performance range of equipment, and when sub-optimal conditions are observed, an alert is generated and actioned by operations personnel. Due to a very successful pilot and better than

expected results, we have implemented this technology at five of our thermal assets this year.

Use of advanced tools such as the Acoustic Leak detector to proactively locate and prevent potential maintenance issues which help us reduce downtime and operating costs. This tool uses an ultrasound camera and imaging to detect any type of gas, not only where the leak is, but also the size of leak in real time. By using ultrasound microphones, a camera reconstructs the position of the sound source and overlays this information onto an image of the equipment so that we can 'hear' the leaks using sensitive microphones well beyond audible levels to human ear.

Replacing the existing chiller modules at Arlington with technology that uses upgraded drive fans and better performing material, resulting in lower chiller temperatures and up to 2 extra megawatts per chiller at full capacity. The improvements will also reduce on-going maintenance costs and extend the life of the equipment well beyond original design.

Drones have been used extensively with the renewables fleet. However, drones are also being used more at our thermal facilities. Pipe hanger and stack inspections were completed at Goreway during the April 2021 turnaround using a drone. This significantly reduced downtime, lowered our cost by more than four times and eliminated the need for people to work-at-heights.

#### Slide 76

In conclusion, our operations strategy is Powering a Sustainable Future with resilience, optimization and innovation by applying what we have learned to improve reliability and reduce cost; asking how we could arrange or do things differently to achieve better results; and deploying new technologies that are likely to gain us a competitive advantage. I will now turn it over to Steve.

#### Slide 77

Thank you, Bryan and good morning. Today, I'll be addressing Capital Power's continuing success in developing cutting edge generating facilities in support of our commitment to carbon neutrality.

Between now and 2024 Capital Power will build and commission \$1.9 billion dollars of solar, wind, battery and decarbonization facilities, using a time proven formula of strategic partnerships and collaborative contracting.

#### Slide 78

Capital Power has partnered with tier one contractors and equipment suppliers, in a coordinated effort to maintain the impressive safety record while maintaining an aggressive schedule for our Genesee 1 and 2 repowering project. As of today, 85% of the project budget has been committed and the current trajectory shows the project finishing both on time and within the original budget. With piling complete and major equipment foundation nearing completion, the site is ready to receive the gas turbines and generators that will be shipped from Savannah, Georgia in the days to come. An execution strategy that included early commitments for major components and a significant commitment to North American manufactured equipment, has help mitigate the cost impacts from overseas supply chain issues and maintained those impacts to within normal project contingencies.

#### Slide 79

On the left side of the slide, is a recent progress photo of the gas turbine generator and HRSG foundations, showing progress towards receiving the Unit 1 gas turbine in late December and Unit 2 gas turbine in mid-January. On the right, is our Unit 1 gas turbine as it was readied for shipment to site in late October. We've met all of our key milestones to date and remain on schedule for Unit 1 simple cycle operation in Q2 2023 followed by Unit 2 in Q3 of the same year. Unit 1 NGCC operation is scheduled for Q1 of 2024 followed by Unit 2 in Q3.

#### Slide 80

As Chris mentioned earlier, the Genesee 1 and 2 repowering project's final configuration will include a 210 MW Battery Energy Storage System or BESS, to be constructed in unison with the repowering project and commissioned in advance and in support of the Unit 1 NGCC commissioning. The BESS will be located on the east side of the Genesee facility, will occupy a footprint approximately the size of three football

fields and will be tied, by way of controls, to the Genesee 1 and 2 facilities in support of the MSSC compliance. Once installed, the lithium-ion battery array will be capable of instantaneously providing the full 210 MW within a fraction of a second, in the unlikely circumstance where we have a full load trip of either unit and, should AESO increase MSSC beyond 466 MW in the future, be capable of providing grid support services as well.

**Slide 81**

As Brian indicated in his opening remarks, Whitla phase 2 and 3 have successfully achieved COD as of December 1st. This is our eighth consecutive wind project to be completed at or ahead of schedule and on budget. This achievement didn't come easily but, in collaboration with our project construction partners, we were able to overcome several supply chain obstacles, optimize layout while maintaining plant output and deliver a completed facility four weeks ahead of schedule.

**Slide 82**

Our Strathmore and Enchant Solar projects are another shining example of how Capital Power's approach to collaborative contracting helps mitigate project risk. At both Strathmore and Enchant, despite a 5-fold increase in the price of domestic steel, impacting supply of the 50,000 piles and the steel racking that secures the hundreds of thousands of solar modules and a similar 5-fold increase in the cost of containerized shipments from southeast Asia, the projects are forecast to run less than 20% over budget. The unfortunate weather-related events that occurred in British Columbia in November have further exacerbated the pan-Pacific shipping impacts to Strathmore, which will result in a delay of COD to mid-March. Enchant is still on schedule for a December 2022 COD and both Strathmore and Enchant project economics remain above WACC. Without a collaborative approach to execution and an exceptional ability to optimize both design and constructability, the outcomes could have been much, much worse.

**Slide 83**

Our North Carolina solar portfolio is made up of three projects: Hornet, Hunter's Cove, and Bear Branch, totaling 170 MWs. To reiterate what Chris mentioned earlier, the three projects originally

scheduled to reach COD in late 2022 have been delayed to the last quarter of 2023 or early 2024 due to delays in the provision of transmission access from our off-taker Duke Power. With site clearing and civil works slated to begin in mid-2022 the revised schedule provides Capital Power with the opportunity to delay procurement of steel components and modules until late 2022 or early 2023 when much of the supply chain concerns are expected to return to near normal. The delay also provides more time to solidify partnerships with key local contractors, to optimize layouts and civil design for maximum cost savings while optimizing output as we did at our Alberta solar facilities.

**Slide 84**

Capital Power has, over the last several projects, departed from the traditional three bids and a buy approach to contracting, in favour of a more collaborative approach. We seek out Engineering houses, Supplier and EPC Contractors that share Capital Power's values and philosophy; whereby, through mutual respect and acknowledgement of what both parties need to be successful, we can find creative solutions to overcome adversities that are bound to arise during the execution of a large capital project. I attribute our success in overcoming the recent industry challenges, to this unique approach to project execution.

**Slide 85**

Halkirk 2, as announced earlier this morning and outlined by Chris, is a 151 MW extension to our existing Halkirk facility in Paintearth County, Alberta. The AUC amendment application will be filed in June of next year to reflect the new, optimized layout which reduces the number of wind turbines being used, reduce the amount of disturbed area and increase the output from the current 148 MW. The process is expected to take approximately one year. With construction beginning in fall of 2023 and COD scheduled for late 2024, timing is such that we should be able to take full advantage for normalized commodity and shipping costs to optimize the project's economics.

**Slide 86**

Our transition from coal to gas at Genesee through the conversion of Units 1 and 2 to Natural Gas Combined Cycle and Unit 3 to gas-fired

boiler technology, is not only a major step in Capital Power's decarbonization journey but Canada's too. Although we have been successful, through our operations-based GPS program, in making Genesee, North America's most efficient sub-critical coal-fired generation from a carbon intensity standpoint; the elimination of 3.4 mega-tonnes of carbon per year, once converted to NGCC, will make Genesee 1 and 2 the most efficient thermal facility in Canada. But we're not stopping there. The installation of post-combustion carbon capture on these units will reduce emissions by an additional 3 mega-tonnes of CO<sub>2</sub> per year, resulting in an overall CO<sub>2</sub> emission reduction of more than 95% and will make Genesee 1 and 2 amongst the cleanest baseload thermal generation facilities in the world.

**Slide 87**

Capital Power has been working with amine technology for post-combustion scrubbing for CCS on projects since 2007. As Kate mentioned, the projects didn't move forward due to the economic considerations at that time, but technically, the projects were viable. We therefore continue to focus on proven amine-based capture technologies that already have commercial installations of substantial size and gas streams that have similar CO<sub>2</sub> concentrations. We are currently working with several CCS technology providers that have operating facilities based on these technologies. There are no process hurdles to overcome, it's simply an issue of scaling the technology up. I have the upmost confidence in both the technology selection and in our ability develop a facility that meets our business goals.

From an economic standpoint, carbon capture at Genesee is a great fit, for several reasons. The CCUS Project is expected to follow closely behind the Genesee 1 and 2 repowering project to take full advantage of the project infrastructure like temporary facilities, laydown, and construction utilities. The carbon capture project leverages existing brownfield infrastructure like the cooling pond, utilities, and balance of plant systems, which will reduce the overall capital cost. Alberta, and Genesee specifically, is very close to several deep saline aquifer sequestration sites and will reduce the downstream cost of sequestering.

**Slide 88**

The CCS facility will be located immediately south of the repowered Genesee units as generally depicted here.

**Slide 89**

Kate spoke of the CCS timelines leading up to today, so now I'll focus on CCS on a go-forward basis. As with any project of this size and complexity, the development timeline for the CCS project is considerable. Currently we're in the process of finalizing our pre-FEED study, aimed at solidifying project definition, technology licensor scoping and next level costing details. This also includes preliminary engineering deliverables like mass balances and process flow diagrams, which will in turn form the basis of the FEED study that is planned to kick off in 2022 and last for about one year. Regulatory and environmental permitting processes will run in parallel and will culminate in breaking ground in 2024 with commercial operation in late 2026 or early 2027.

**Slide 90**

So, in conclusion the innovative and predictable development of new assets or the strategic upgrade of older assets, put a sustainable future for people and planet within our grasp. Now I'll turn the mic over to Sandra. Thank you.

**Slide 91**

Thank you Steve, and good morning everyone. Today you have heard how Capital Power is increasing our velocity on decarbonization initiatives that move us towards net carbon neutrality by 2050. Our investments in emissions free renewables and repowering of Genesee extends our assets lives, thereby contributing to resilient long term cashflow that create shareholder value. In the near to medium term, predictable cashflows support annual dividend increases out to 2025. As we consider our sustainability goals, we are focused on CCS, and storage technologies as the next step to extend the life and profitability of our assets.

**Slide 92**

We have been delivering shareholder value through the resiliency of our current fleet, securing our competitive position in the Alberta power market and continued execution on growth. You heard Steve speak to Genesee repowering making these facilities the most efficient natural



gas combined cycle units in Canada. This ensures reliable strong operating margins by mitigating an otherwise material and increasing carbon tax liability. In the more near term, we have been de-risking our cashflows by securing low-cost carbon offsets, increasing commodity hedging and executing on longer term contracts.

Capital Power continues to execute on our growth strategy. In 2021, we delivered on our growth target coming in just under \$500 million in committed capital. When combined with the prior development projects, this increases our growth funding requirements to \$1.5 billion over the next three years which we expect to achieve through internally generated cashflow and debt financing without the need for additional common equity.

**Slide 93**

As we accelerate the decarbonization plan, our financial strategy remains consistent with the principles we have shared with you in the past. Two years of extremely strong internally generated cashflow in 2021 and 2022 strengthens our balance sheet. In addition to taking actions that de-risk our cashflows, the two-year extension of our credit facilities and extending out our debt maturity profile provides financial stability and strength moving forward.

Our priority is to fund growth that is consistent with our low carbon strategy in a cost-effective manner. Our capital allocation model continues to direct 50% of AFFO towards funding growth with the balance going towards dividends. Our access to capital markets remains sufficient to fund our growth. Capital Power has been able to access longer tenor debt which has extended our debt maturity profile and reduced refinancing risk. In 2021, we issued a U.S. private placement for 12 years making it the third consecutive year of debt issuances with tenors greater than 10 years.

Our investment grade credit rating remains a top priority and Capital Power is exceeding rating agency expectations to maintain our current rating. Disciplined growth and financing plans are centered around the objective to remain investment grade. In June, Capital Power completed a \$288 million equity offering that prefunds our existing growth capex, which along

with strong cashflow, positions us very well to maintain credit metrics.

Dividend stability is important to both our equity investors and debtholders making it a key component of our financial strategy. Annual dividend growth is supported by reliable cashflow with a payout ratio inside the target range and this is without needing incremental growth.

**Slide 94**

As you know, Capital Power's history of annual dividend increases dates back to 2013. Since that time, we have increased the dividend each year by 7% and have remained below or in the low end of the target AFFO payout range of 45-55%. We are committed to annual dividend increases as demonstrated by the extension of our guidance for 5% annual increases out to 2025. Over that period, the average payout ratio, excluding incremental growth, is forecast to be 46%, thereby allowing more internally generated cash flow to fund growth opportunities.

**Slide 95**

In the five years since 2017, adjusted EBITDA and AFFO have grown at a 13% and 11% compound average growth rate, respectively. In 2022, we expect a more modest year over year increase as the contributions from Phase 2 and 3 of Whittle Wind and Strathmore Solar have been partially offset by other factors that I will speak to in more detail later. Consistent with prior years, the financial targets do not include contributions from new growth that may arise in the year, which has generated up to as much as \$40 million of incremental AFFO in past years. The 2022 AFFO guidance of \$580 million to \$630 million is 2% above the midpoint of the 2021 revised guidance and 15% above the midpoint of the guidance provided this time last year. On an AFFO per share basis, 2021 and 2022 reflect dilution from the equity offering in June this year to fund our growth pipeline. The 5-year compound average growth rate for AFFO per share in 2022 is 8%.

**Slide 96**

2021 has been our strongest year for financial results as shown by the revised guidance that we provided after the second quarter that moved the midpoint of our adjusted EBITDA from \$1 billion to \$1.115 billion. 2022 results will sustain this high-

water mark with an increase of \$20 million over the revised forecast for 2021.

The adjusted EBITDA increase of \$20 million is made up of several factors as shown on the waterfall chart. Firstly, new assets in 2022 include a full year of Phase 2 and 3 of Whitla Wind and the addition of Strathmore Solar in Q1. These facilities will contribute almost \$40 million in adjusted EBITDA. This uplift is partially offset by a lower contribution from the Alberta Commercial segment as shown on the next bar. Alberta Commercial year-over-year is forecast to have a slightly lower captured pool price and higher fuel costs including carbon taxes which are partially offset by higher generation volumes with the return of Genesee 2. G&A spend is higher in 2022 as investments in emerging technologies, such as the CCS FEED Study, are included in operating costs as the early stage and nature of the spend precludes capitalization. We have also increased resourcing for several ESG commitments that Brian spoke to earlier including water management and sustainable sourcing and support for Diversity, Equity, and Inclusion initiatives.

**Slide 97**

The original 2021 AFFO guidance had a midpoint of \$525 million, which was increased to a range of \$570 million to \$620 million in Q2 of this year, as shown on the first two bars of the chart. The waterfall chart shows that for 2022 the year-over-year AFFO midpoint increases by \$10 million relative to the revised guidance. Beyond EBITDA, the most significant variance year-over-year is current taxes. We are now cash taxable in Canada, with available losses and the Phase 2 and 3 Whitla Wind CCA deductions being utilized against the higher 2021 taxable income due to strong performance in the year. Going into 2022, there remains a level of uncertainty regarding the timing of tax attributes that could alter results as we seek to optimize taxes for the 2021 through 2023 tax years.

The higher sustaining capex in 2022 as Bryan spoke to earlier reduces AFFO by \$15 million year-over-year. Spending of \$110 million is \$30 million above the forecasted long run annual average of \$80 million post-repowering in 2025.

Lower financing costs increase 2022's AFFO as there is \$7 million in interest savings from the refinancing of the U.S. private placement in 2021. This is a combination of the lower issuance size required and lower interest rate compared to the debt maturity. The second component driving lower finance expenses is the pre-tax interest savings of \$8 million on the expected hybrid bond issuance in 2022, versus the cost of the current preferred shares. This includes the delayed timing of the financing to Q3 next year to align with when the funds are needed. The last item I will speak to is the Milner line loss dispute that was resolved in late 2020. The final two tranches were paid in early 2021 for a combined total of \$15 million.

**Slide 98**

The current hedge position for 2022 is 64% in the high-\$60/megawatt hour (MWh) range. Hedging has increased for 2023 to be 41% in the high-\$50 per MWh range and 2024 is 26% hedged in the mid-\$50 per MWh range. In addition to the remaining open baseload position, gas peaking and renewable assets are available to capture the higher power prices. The hedged position also includes longer duration Origination contracts as another mechanism to manage price risk. The contracts capture a lower price relative to forwards in 2022 but provide upside in future years when we see prices in the province move down to more normal levels than we are seeing in the current market peak.

As indicated last year when we intentionally entered the year less hedged than normal, we have reverted back to the hedge strategy that provides stability by reducing fluctuations in cashflows and optimizing price and volume positions that mitigate against price changes and market illiquidity. As Chris mentioned, this strategy has allowed us to capture realized prices that average 15% above spot price since our inception in 2009. The key for being able to shift back to this strategy is the more consistent alignment of our view of 2022 power prices relative to the forward prices, unlike last year where there was a very material gap. As shown in the middle of the chart, despite the higher hedged position, the sensitivity to a \$5 per MWh change in power price in 2022 is an approximate \$25 million EBITDA impact.

Natural gas prices will have an increasingly more important impact on our financial results as we transition off coal. We have been actively hedging our expected natural gas burn for the Alberta fleet, at favourable prices relative to forwards. Over the next three years, our exposure has been approximately 90% hedged on average in the \$2 per gigajoule area compared to forwards in the \$3 to \$4 per gigajoule range.

**Slide 99**

Capital Power will continue to manage the carbon tax obligation with offsets; however, as Kate spoke to earlier, physical reduction at source will always be the priority. The greatest impact on our emissions profile over the next few years will be from the physical reductions resulting from moving off coal. In 2022, the carbon tax liability is approximately \$233 million of which offsets will be used to settle \$69 million. The use of offsets in 2022 results in a compliance price of \$35/tonne compared to \$32/tonne in 2021. This \$3/tonne increase is significantly lower than the \$10/tonne increase in the headline price which will move up to \$50/tonne in 2022. Capital Power's carbon tax liability will decline to approximately \$156 million in 2023, \$28 million in 2024, and \$20 million in 2025 at which time the carbon tax headline price is forecast to be \$95/tonne, or almost double 2022's level. Capital Power has built an inventory of offsets that is well in excess of our forecast requirement which makes this a well mitigated risk.

**Slide 100**

The financial outlook for 2022 provides sufficient funding for financial obligations and growth capex from AFFO and the refinancing of the preferred shares. If required, we will have available liquidity on our \$1 billion of credit facilities to manage any incremental spend. Financing in 2022 is limited to the refinancing of preferred shares which we expect will be a hybrid instrument that will maximize the allowable intermediary instruments in our capital stack by S&P and is the most cost-efficient option.

**Slide 101**

The capital program for the renewable development projects and Genesee repowering is spread over the next three years with \$462 million

forecast for 2022. The total three year spend approximates \$1.5 billion with the announcement of Halkirk 2 for \$274 million and \$195 million for the 210 MW battery at Genesee. As Chris mentioned, the final configuration of the Genesee project inclusive of battery costs, keeps the project economics deep in the money. Despite the cost increases on the solar projects that Steve spoke to earlier, the projects deliver returns above the project WACC. Halkirk 2 will average \$27 million in AFFO per year during the first five years of operations starting in 2024.

**Slide 102**

In 2021, S&P and DBRS affirmed our investment grade credit ratings of BBB- and BBB low with stable outlook and trend. Our forecast metrics despite being in a heavy construction cycle remains above rating agency expectations for our current rating. In conjunction with the very strong 2021 cashflow, the June equity offering that pre-funded the equity required for our capital program, mitigated financing risk, and provided headroom on the credit metrics. 2022 is forecast to be another strong year, with credit metrics well above current rating thresholds. We have strong liquidity with an excess of \$1.2 billion collectively between our committed credit facility which matures in July of 2026 and cash on hand.

In July, we announced the extension, amendment, and transition of the existing committed credit facilities to sustainability-linked credit facilities (SLCs). The SLCs are structured with one key performance indicator with annual sustainability performance targets aligned to Capital Power's publicly stated sustainability target: to reduce Scope 1 CO2 emission intensity by 65% by 2030 from 2005 levels. The SLCs include terms that reduce or increase borrowing costs as the annual targets are met or missed.

**Slide 103**

The company has well spread-out debt maturities supported by long asset lives, with no debt maturities until 2024. As I mentioned earlier, Capital Power has pushed out the tenor for recent issuances beyond 10 years, in the historic low interest rate environment and has flexibility for tenors in a rising rate environment. The company has been actively hedging the underlying

Government of Canada rates for all refinancing's into early 2026, in anticipation of increasing rates.

**Slide 104**

In closing, I would highlight that our deployment of capital to decarbonization technologies and renewables projects strengthens our longer-term financial stability. Capital Power has mitigated our carbon liability with real reductions in emissions with an accelerated timeline of our strategy which preserves our position in the Alberta power market in the longer term. Our balance sheet strength and resilient cashflows, secures our credit rating and access to capital. This has enabled Capital Power to extend the dividend guidance for 5% annual increases to 2025. Thank you and I will now turn it back over to Brian.

**Slide 105**

In bringing our presentation this morning to a close, I hope you appreciate why the executives are excited about Capital Power in 2022 and beyond. Capital Power is truly a responsible, sustainability focused company which is attractive from many perspectives.

**Slide 106**

Focusing first on 2022. Our targeted sustaining capital expenditures are in the \$105 to \$115 million range. Significantly higher than the next few years due to two Genesee planned outages in 2022. Fleet availability is expected to be 93% inclusive of the impact of being a high maintenance year. Adjusted EBITDA is targeted to be \$1.11 billion to \$1.16 billion dollars, which is almost 14% higher than the original 2021 target range. Likewise, the AFFO target of \$580 million to \$630 million is 15% above the original 2021 AFFO target.

**Slide 107**

Our annual growth targets continue to contain growth projects being complete or proceeding on time and on budget including the Genesee 1 and 2 repowering project. In 2021 we reached committed capital of \$469 million relative to the \$500 million target. We have the same \$500 million committed capital target for 2022. In addition, we are targeting to continue the development of the Genesee Carbon Conversion Centre and the CCUS development for Genesee 1 and 2 emissions.

**Slide 108**

Meeting this last target on advancing our decarbonization projects means 2022 will be a very significant strategic year for Capital Power. This demonstrates our commitment to the transition to a carbon neutral future. The resiliency and success of our strategy provides a firm foundation for these opportunities. Our focus on optimization and innovation makes achieving these targets attainable.

**Slide 109**

I see Capital Power as an attractive investment opportunity. Our strategy has not only stood the test of time, it also positions Capital Power very well for the future. It is the foundation and enabler for us to meet our commitment to being net carbon neutral by 2050. As Chris outlined our recent success in renewables positions us very well for significant growth through much of this decade. We are competitive and we have a substantial opportunity set.

We are doing very well in Alberta and our initiatives are positioning us even better for the future. Our assets are thriving, not dying. As Sandra and Bryan described we have also significantly reduced our shorter-term risks and cost pressures. The recontracting momentum of our natural gas assets confirms the strength of our contracted cashflow through this decade. This is in addition to the new contracted renewable assets that we add every year. We have had a long history of optimization and innovation that has improved the performance of our assets such as the GPS project or Ops2030. It's led to competitive advantages when we develop and build or acquire assets. And it leads to exciting initiatives like the Genesee Carbon Conversion Centre and CCS for Genesee 1 and 2. We have a very exciting future. We are proud of our ESG commitments and recognize it is a journey. We want to be measured by our actions and not our words. Thank you. We are now going to take a short break to set up and respond to questions.

**Question & Answer Session**

**Moderator**

All right. Thank you everybody for joining us here today. We're going to go into our Q&A now with our analysts. So the executive is standing by for



you. We're going to start with Pat Kenny, go ahead Pat.

**Patrick Kenny**

Thanks and good morning everybody and thanks for the presentation today. Just starting with the CCS opportunity, wondering if you can just confirm the proposed ownership structure with Enbridge. Will you look to own 100% of the capture infrastructure? And I guess, simply pay a regulated tariff for the CO2 transportation and storage? Or will you look to be sharing any ownership of the assets?

**Chris Kopecky**

It's contemplated right. Thank you for the question. It's contemplated right now that we would own the capture infrastructure inside the fence and Enbridge would own transportation and sequestration infrastructure. We expect to talk about the details of the arrangements. But the simple split right now is, we will own what is behind the fence and Enbridge will own what is beyond the fence.

**Patrick Kenny**

And I guess, curious if you could just walk us through the uptick in the \$1.8 billion to \$2 billion investment guidance there versus the initial. I think it was closer to \$1.5 billion that was mentioned earlier in the year. What the stand-alone IRR for the project might be at this point?

**Chris Kopecky**

The uptick is really just a refinement. We continue to work through the pre-FEED study and it's just refined capital costs. In terms of IRR, we haven't settled on an IRR at this point for the project, an expected IRR.

**Patrick Kenny**

Okay. And maybe last one for me for Sandra. Just curious if there's any opportunity out there to ring fence any of your decarbonization investment opportunities, either through sustainable project financing or SLBs such that you might be able to limit some pressure on the corporate leverage ratios as you look to build out some of your CCS or similar opportunities?

**Sandra Haskins**

Thanks Pat. Yes, there's a lot of uncertainty right now with respect to what kind of government funding we will be getting and sort of the tax incentives, whether it's direct pay or ITCs. Once we start to see some definitive guidance around what that will be, we'll start looking more closely at the financing and would expect that you would see as many as two different partnerships potentially in the structure as well. So still some time to go on looking at the financing. As far as sustainability products, yes, whether it be for CCS or anything else, we're at the point where we're looking to put together a framework for sustainability financing now that we've done the SLC and be in a position where we would be able to do sustainability-linked bonds to finance a lot of the initiatives that we have that would fit the criteria for that type of instrument.

**Moderator**

We're going to head on over to John Mould. John, go ahead.

**John Mould**

Maybe just starting with your CCUS plans more from a technical perspective. I'm just wondering what lessons you've applied to your thought process there from other CCUS projects that you've seen where you've seen good success or also we've seen some cost overruns or performance, maybe not as expected? How do you build all that into your thought process for what you're looking to do with Genesee 1 and 2?

**Steve Owens**

Yes, sure. Thanks very much. Great question. We're spending most of our effort right now on the pre-FEED doing exactly that, looking at what has been installed, what's been successful and where the problems may lie. It will be through the FEED process and the pre-FEED process that we come up with the final configuration and with the final technology. But early days right now, we've seen what's been out there. We're quite aware of it, and we plan on using just industry knowledge at this point in order to determine what's the best technology moving forward. But it's definitely in the amine sequestering type of technology for sure.

**Brian Vaasjo**

I might just add to that. I think one of the important lessons that we learned when we were developing what was then called Genesee 4, which was a gasification facility with CCUS was the importance of the contract. We had taken it all the way from pre-FEED through FEED study. And we were actually at a point where we could have pulled the trigger on a number of contracts to move forward. But what we found through that process was from a commercial perspective, the contract with the provider of the technology was extremely important.

The degree to which they provide performance guarantees and obviously, derisk the project, but also, what stood behind those performance guarantees are time guarantees and we found that they was great, significant difference between the different potential technology providers and what they were able to -- and comfortable in guaranteeing in terms of performance and, of course, the liquidated damages behind that. So we would see -- obviously, there's construction type risks and other risks associated with the project. But given that Steve has said, this is a very proven technology. We would look for very significant performance guarantees and derisk the project from that perspective.

**John Mould**

Okay. Great. And then maybe just in terms of the funding plan there. Just wondering about the timelines you're looking for on the government side in terms of more clarity on what the regulatory construct could look like for the CCUS investment, either in terms of tax credits or other potential funding mechanisms from both the federal or provincial governments?

**Brian Vaasjo**

So maybe I'll start and Chris can add to it. What we're looking at in terms of time frame, we've said that publicly, we could be in the ground as early as 2026. But what's going to guide a significant part of that time frame is the degree to which we get certainty around government programs. They're talking about a 45Q like element that may be available to us. So it's understanding and

actually seeing those commitments by particularly the federal government and working with the Canadian Infrastructure Bank, when those things start actually being in place, that will start triggering us to move into investment decisions and eventually into construction.

The timing around that, our sense is that the federal government is wanting to move fairly quickly. All of this is to have a lot in place for, obviously, 2030. We're probably ahead of the pack in terms of timing. So they'd be needing to, again, get a lot of these programs in place, get a lot of firm confirmed interest before they move ahead. So, we would hope that within calendar year 2022 that a lot of these programs would be in place, and we'd be in a position to make an investment decision near the end of 2022 or early 2023.

**Moderator**

We're going over to Andrew. Go ahead Andrew.

**Andrew Kuske**

Thanks and good morning. Question is probably directed towards Brian and Sandra, and it's really how do you think about the evolution and the bias of the balance sheet on a longer-term basis? And I ask the question in part is you've obviously been very successful on buying contracted natural plants sort of midlife, refurbishing them, squeezing out more value. Those are almost immediately very cash generative. And then on the renewable side, you've been a good developer of assets. The multiples of investments tend to be a bit higher, returns a little bit lower, just sort of generally speaking, until you expand sites. So how do you think about just the balancing act between those two worlds. And then sort of stepping back from a stock market perspective, obviously, the multiples that the market rewards on renewables are much higher versus some of the issues we see around fossil fuel plants?

**Sandra Haskins**

No, you're right, Andrew. It is a bit of a discrepancy between the multiples that you see for natural gas and what you see for renewables. And we have said before that, don't see ourselves

fully rewarded for the renewables that we have, that are about one-third of our AFFO. But the natural gas does provide that uplift in cash flow that we're able to strengthen our balance sheet and support our dividend but see that as time evolves and there's more clarity in the market on the role of natural gas. I am optimistic that we'll start to be more rewarded for our strategy and what we're doing in terms of decarbonization and see that we might see multiple expansion through our strategy, getting a little more traction and understanding from a broader perspective as opposed to right now where it's just sort of in that green -- fully green or fully renewable space. So, I think that our strategy is very good in terms of what we're doing and where we're moving, and it gives us sort of the best of both in terms of cash flow and returns and strengthening our balance sheet and remaining strong.

#### **Brian Vaasjo**

Yes. Just to add to that, I think when we're looking at multiples, there's a couple of different things that we keep in mind. One, of course, is as Sandra has outlined and you've outlined, the multiples around natural gas business tends to be greater -- sorry, on the renewable side tends to be greater. The other side of that is that the accretion associated with that is less. And again, as Sandra alluded to, the support to the balance sheet and dividend is more along the natural gas side. But that also comes from the Alberta side as well and the merchant, and the strength behind the merchant cash flows. One of the things that we expect, and we understand from talking to folks in the market and others is that when we actually are "off coal" that we can probably start gaining more attention from a lot broader number of investors that will appreciate a lot more our portfolio of renewable assets. So, we definitely, in the future, expect that to be an expansion event.

#### **Andrew Kuske**

That's very helpful. And then as a follow-up and slightly related, how would you compare the acquisition you announced today of the development sites to what was Element a number of years ago, I think we're talking 5 to 7 years ago when you bought Element, which a bit of growth spun off of that. How do you think about on a

comparative basis and just the potential ahead?

#### **Chris Kopecky**

We're very, very excited about this announcement. I think relative to Element portfolio that we developed previously; I think we expect to have an even higher success rate for this portfolio. We feel, first, very good about the sites themselves. They're all excellent development sites with good interconnection positions that were validated by the seller and then we did our own injection study. So, we feel very confident that interconnections and the sites themselves will be competitive. We see increasing demand for solar across the U.S. And there is a very constructive policy environment with the extension of the tax credits and the likely direct pay of credits in the United States, which would be very beneficial for our development activities. And I think finally, I'd note that we have a track record of success in developing early to mid-stage projects and bringing them along to successful through construction to successful COD. So, we're quite bullish on the opportunity that the portfolio presents.

#### **Andrew Kuske**

And then maybe just if I can, the solar versus wind that Element was, do you expect a faster cash conversion cycle of just from acquisition today to development and build out?

#### **Chris Kopecky**

Yes. We think in general, there's a lot -- the timelines are more compressed with solar. It's easier to permit and easier to build, and we would definitely see that accelerated versus to the wind developments that we had done.

#### **Moderator**

We are going to head over to Mark Jarvi. Go ahead Mark.

#### **Mark Jarvi**

Good morning everyone. Maybe I'll start with Chris here. Just in terms of your comments on the U.S. solar pipeline you bought. Maybe if you could quantify how you would measure your success? Like what percentage of the 1.3 gigawatts do you see you'd want to get built out, and then maybe in

the next 5 years to 2026, what sort of a target you'd be looking for in that portfolio?

**Chris Kopecky**

Yes. I would say conservatively, we expect to build out a 40% to 50% of the megawatts and -- but I do feel confident that, given some of the site characteristics that I mentioned and the policy drivers and demand drivers that we could easily see even higher number.

**Mark Jarvi**

Okay. That's helpful. And then just coming back to Genesee. The capex is up to implement the storage as a solution here on the capacity constraints, you still talk about of fairly healthy IRR. So, are you implying that EBITDA itself you expected from the assets should be up around 20% as well or what else kind of goes into the thoughts around having that 20% levered IRR?

**Sandra Haskins**

Yes. So last year, when we talked about the 20% levered IRR, it was comparing our portfolio post repowering to our original plan, which was coal to gas conversion. So, a lot has changed since we've done those economics. So, looking at carbon tax escalation has increased significantly from the assumptions that went into that original business case, Alberta power prices as well as supply in the market. So, there's been a fair number of changes. So doing a comparison of the final configuration to the original is analysis we didn't go back in and do. We were focused on the alternatives at hand, but still see that we would see an uplift, quite similar to what we had on the original economics. But bearing in mind, we are looking at higher natural gas, higher power prices, what have you, but most of that was tailwinds for this project. So, expect that it's still very, very strong.

**Mark Jarvi**

Okay. And I guess my last question before I go back in the queue is just coming back to the funding and support for CCS, you talked about a 45Q like tax credit, potentially some other funding on the capex side. So, to go to FID, do you need to hedge the tax credits for sure? And then second, what other funding mechanisms you

need on the capex? And when you think about the \$1.8 billion to \$2 billion, how much of that ultimately do you think could be sort of net to Capital Power in terms of your funding obligations?

**Brian Vaasjo**

And maybe I'll just start off with a couple of high-level points, and Sandra can follow up. Firstly, when we look at that project and you look at the funding requirements, we haven't quite concluded when would be the best time. But in all likelihood, we will have a partner. And some of it depends on certainty in advance. Some of it depends on, again, where along the development cycle, it makes the most sense to bring a partner in for various reasons. Some elements could be strategic and certainly, there is some financial because \$2 billion is a significant bite for our balance sheet. We're not concerned about the risk with the project as we see it unfolding and based on our expectations. But there is just again, a very significant investment. We think there will be a lot of appetite out there for others participate with us.

The other thing in terms of what we need from a government perspective is that certainly, 45Q is in the mix. Some support from the Canadian Infrastructure Bank is in the mix. And depending on how those come about and also the risk in the environment, I mean you had asked an earlier question about what we would see as a hurdle rate or an IRR. The fact of the matter is the risk premium around this project is uncertain. And depending on how these other elements, not the construction, not the technology, but the financing elements and what might be there from governments in terms of securing things or making more certain elements around carbon tax, for example, can reduce the risk in the project, can reduce our expectations of different levels of government support.

So, it's a number of different moving pieces, whether or not we'd be looking for direct government support, i.e., funding part of the construction is certainly something that's entirely possible. But a lot of that will depend on how the other different elements come together. And to



the extent that they're there in full force and so on. We do have scenarios where it might not need any additional support. Again, a lot of that being what certainty the governments can provide in terms of the outlook for the next 10 or 20 years around things like carbon pricing and other elements of government policies. So again, it's a mix right now. And again, depending on how those come together, will depend on; A, whether we move forward. But we are confident with the messaging that we hear and the conversations that we've had that this is probably one of those projects that just sort of is right down the middle of a fairway from a government policy perspective. So, we're pretty pleased with our positioning today. And we do believe support that will be broadly available will be available to us.

#### **Mark Jarvi**

And just a quick follow-up on your comments, Brian. What is the strategic need for that type of project? What would they bring to the table or who are you looking for? I kind of certainly understand the financial partnership. Just want to understand strategic might bring to table?

#### **Brian Vaasjo**

Well, you have to appreciate that this is -- and again, not to take away from the confidence in our view of technology. This will be the largest CCUS project on a natural gas plant, we believe, in the world. And so there will be a number of -- it could be the OEM, it could be anyone who's participating in the project. This could be of significant value to them from just an overall investment. And more strategic from their perspective. And obviously, if you bring an OEM into a project, they will make sure even more so than liquidated damages and other things that it is successful.

So very much -- that's one example of who could be a strategic investor. There could be different parts of the government. I mean one of the elements, obviously, that's in play and we'll be pursuing is, the possibility or probability of First Nations participation, which we think is very appropriate given where we are situated as a facility and having First Nations as our neighbor. So again, a lot of it depends on how things unfold,

but definitely more to come. And certainly, this time next year, we expect to have some pretty exciting news in talking about some of these details in more detail. But obviously, through this year, talking about the advancement and the different conversations we're having with both levels of government.

#### **Moderator**

We're going to head on over to Naji Baydoun. Go ahead Naji

#### **Naji Baydoun**

Just wanted to start off the high level, I guess you're maintaining a bit more of a balanced approach to growth and investing between renewables on one side with the CCUS, development acquisition and gas assets on the other side with the repowering in the CCUS. What would cause you to change your philosophy and maybe try to shift or accelerate investments on other side? And how would you be positioned to do so, if necessary.

#### **Brian Vaasjo**

So just a point of clarification. When you say accelerated investment on the other side, it wasn't quite clear as to what you meant there? What is the other side?

#### **Naji Baydoun**

I'm saying what will cause you to either want to invest a lot more on renewables or on the gas side versus meeting sort of a balance today?

#### **Brian Vaasjo**

Well, I think as we've always said, we've never had a specific target of X percent renewables, Y percent natural gas or Z percent Alberta interest. It's been more driven by where we see the greater returns for shareholders at the time. And now, obviously, in the longer term, I would say that from a renewables perspective, there's nothing that is holding us back from committing as much capital and resources to renewables as we can.

We've just announced a significant footprint -- increase in our footprint and opportunities. And I think as Chris has said, we expect some significant hit rates on that again, not immediately

because there's still some development on those sites to take place. But yes, we would be expecting to fully fund and commit to half or more of those megawatts and likewise, with our wind resources as well. So, there's nothing really constraining us, and there certainly has not been an allocation one way or the other. Again, we're just looking for the best returns for our shareholders. And again, with the sensitivity to the longer-term trends in terms of what investors are looking for from a more subjective perspective or qualitative perspective.

**Naji Baydoun**

Okay. Okay, got it. Maybe going to your total shareholder return at 10% to 12% over time, you think the \$500 million sort of per year investment envelope, do you think that gets you enough per share growth to achieve this target? Or do you think you need to be maybe closer to your historical growth capex?

**Sandra Haskins**

Yes. We think the \$500 million is sort of in that zone when we look out to our growth plan. So, we have to your point, we have historically been more than that \$500 million. And would expect that, that would be the trend where you'll have some years below, but on average, a bit more. And if we're able to execute on that, then we see that 10% to 12% is achievable.

**Naji Baydoun**

Okay. And just maybe a quick final question on storage. You talked about the battery project, the Genesee -- can you maybe comment on how you use sort of the economics of the puts and takes of storage with the solar pipeline that you just acquired?

**Chris Kopecky**

Sure. We expect -- that's an obvious enhancement to the pipeline. In addition to the solar opportunity and the opportunity to deploy storage there, we're also targeting storage to meet capacity needs in Ontario at our existing assets. And we also have an active storage project in the Pacific Northwest. So, we see the opportunity to integrate storage really across our development pipeline.

**Moderator**

We are going to head on over to Maurice Choy. Maurice, I see that you're on your phone. (Operator Instructions)

**Maurice Choy**

My first question, perhaps directed towards Chris. You mentioned that you expected the TIER to be found equivalent for 2023 to 2030. But also, you stated on the same slide on Slide 54 that intensity standards will also tighten. So, I wanted to just get a little bit of clarity about your comments. When you say equivalent, do you mean that the 0.37 performance standard doesn't change? Or do you mean components may change, including the performance standard, but other components could also change to make it such that collectively, it is equivalent? And also, along with that, could you refresh us on the process and timing as to when we'll know that the TIER will indeed be equivalent for those years?

**Chris Kopecky**

Sure. I'll let Kate speak to the process and timing piece. But we really maybe our mixing two time periods here. We do think it will be found equivalent and the standards to remain the same through 2030, but we are projecting as we move forward, a tightening of the standards after 2030. And we feel like our assets are well positioned to deal with that tightening.

**Kate Chisholm**

I would say further that we believe that the standards -- the stringency of the standards can't outstrip technology's ability to meet them because pre-2030 at least, the only result of that would be increasing costs to consumers and a less reliable system. And so, we're confident that the stringency won't change in Alberta prior to 2030, but it will change post 2030.

**Maurice Choy**

And then just a second question, and this is perhaps for Sandra. Thank you very much for the additional gas hedge disclosures on Slide 98. You're obviously very well hedged for 2022 to 2024 versus where the power production levels are. Notwithstanding that you've obviously had

more coal in the past, has this always been your approach in terms of hedging between the two? And to what do you attribute this difference in terms of percentage levels?

**Sandra Haskins**

On the natural gas hedges, yes, we have entered into hedges on natural gas historically as well. But given that we are moving towards periods where we will be more reliant on natural gas, we have seen that activity pick up in terms of hedging out that exposure. And certainly, when we were seeing rising prices in natural gas, being able to lock in at lower rates was a prudent thing to do. So that's kind of what we're seen in what I demonstrated on that slide with respect to our hedging activities. But it is consistent with what we've done before, where we have looked at expected use and where it was -- seemed appropriate to do so, we did hedge.

**Maurice Choy**

And moving forward, you tend to want to be more hedged on gas rather than power be that because it's philosophically, that's how you approach it? Or is it because on liquidity the difference in that?

**Sandra Haskins**

It's the latter. It's more a liquidity issue, gas being much more liquid than power. So, from that perspective, hedging out that gas exposure, you can go out farther and at higher levels than we have in power. So, where you're seeing our power hedges out to 2024, that's kind of consistent with the levels that you would expect for two years out, given liquidity in the market. But gas is different from that perspective, and that's the key reason you see that gap.

**Moderator**

We're going to head on over to Robert Hope. Go ahead Robert.

**Robert Hope**

First question is just on allocation of capital. Taking a look at the expected capex in 2022 and 2023, relatively full, especially in 2023, when you look at your long list of renewable development projects, is there going to be a strategy to maybe back-end load this a little bit so that it's similar to

Halkirk and it's more in 2024 in terms of spend there? Or are you confident enough in the backdrop to accelerate and potentially rely on some external forms of capital?

**Sandra Haskins**

Yes. So, if you're referring to the solar pipeline, I think we do have capacity even with our current spend to be able to advance those projects over the coming years. It'll more likely start to fill in that 2024 gap, but we'll sort of address it as we move forward in terms of financing, but see strong internally generated cash flow, continuing to be able to support development and strengthen the balance sheet. So don't see that those projects will really move the needle or that we'd have to alter timing, but certainly would look at timing of the projects as well as our position for financing at a point in time in terms of moving forward.

**Robert Hope**

And then I just want to circle back in terms of the batteries at Genesee. What drove the decision to put the batteries in the project now? Are you still having discussions with the AESO about potentially relaxing some of the capacity constraints there? And then under the existing rules, will you be able to bid into the ancillary market? Or do these really have to be used as an insurance item for most part?

**Chris Kopecky**

So currently, they were added to address that MSSC issue, and it will take some tariff changes to unlock some additional value. But there's changes that we expect can be made over time. And how we settled on the battery? We considered a number of options to address this issue. And this was the best mix of technical certainty being able to deliver what the AESO needs in terms of instantaneous response and the potential to unlock future value in the future.

**Moderator**

We next have Ben Pham. Go ahead Ben.

**Ben Pham**

I wanted to clarify, your answer to Maurice's question on the CCUS and the repowering. So that sounds like -- and I want to clarify this, it

sounds like you will need CCUS for repowering to work from a longer-term perspective?

**Brian Vaasjo**

So, if I take your question, you're suggesting that the repowering, et cetera and our investment in Genesee hinges on CCUS. And I think as we shared with you last year when we were talking about the repowering project. It's -- and because of the outlook of reducing carbon and so on and so forth, our economics went out 20 years. And that continues to be the same. And our economics continue to be strong, actually very strong on that basis on a stand-alone basis without CCUS.

Now implicit in our conversations today and our general positioning is that we do look for ways to mitigate that carbon exposure. That would tend to enhance the value of Genesee 1 and 2. And if you think of it being completed in 2024, that economic time frame is out to 2044. We would see with CCUS, not only is it a stand-alone investment with significant value when it comes to fruition, but it will extend the life of Genesee 1 and 2. As Bryan has described, the generators are essentially going to be brand new. And of course, the turbines are going to be brand new. I mean it could go for 40 years. It could -- CCUS could double the life of Genesee 1 and 2. So there is a huge potential uplift there, but it's not necessary today to reach the economics that we assumed on making the decision to go forward with Genesee 1 and 2 repowering -- it would be a significant uplift in value associated with those facilities.

**Ben Pham**

Okay. I just maybe I was interpreting it into wrong. It sounded like the -- you weren't concerned about the emission standards through 2030 in terms of equivalency agreements. But then it sounded like you're concerned post 2030, it could get rebased negatively towards you, you don't have CCS on units?

**Brian Vaasjo**

So, to be clear, as I think Kate had described, we are assuming a reduction in the 0.37 over time. And that same assumption was utilized when we were making decision to go forward on

repowering Genesee 1 and 2. So the decline and the outlook for carbon tax and stringency, et cetera, has not changed from last year to this year. It has reflected a decline after 2030.

**Ben Pham**

Okay. And your path forward with Gen 1 and 2 repowerings, adding on storage and CCS. Is that economically better than just building a brand new combined cycle facility on the site?

**Brian Vaasjo**

Well, the combined cycle facility, a stand-alone combined cycle facility in contrast to Genesee 1 and 2, you might recall that there are combined cycle facility. I mean if you look at Shepard or look at the Cascade project and so on which are new technology, new combined cycle facilities, our cost in utilizing the ancillary and balance of plant facilities associated with Genesee and a rebuild generators have created a significant cost advantage and their performance is the same as a new combined cycle. In fact, they will be the most efficient combined cycle facilities in Canada. So, this is equivalent. Genesee 1 and 2 is absolutely equivalent, repower to new combined cycle facilities.

**Ben Pham**

Okay. I totally appreciate that. It's just -- now you're adding on storage and adding on potentially CCS. So, I'm thinking about from a full cycle perspective. I appreciate that. And then maybe lastly, the reference to \$60 to \$70 credit for these to work, does that also include the transportation, sequestration costs as well?

**Chris Kopecky**

No. That is not. Those would be additional costs.

**Moderator**

All right. That's looking like that's all the questions here from our analysts today. Thank you so much, Ben. We're going to hand back over to Brian for some closing remarks. And again, thank you for joining us today.

**Brian Vaasjo**

Well, thank you. I know it's been a long morning. We've gone through a lot of detailed information



for you, but I think that's typical of Capital Power. I think as we've gone through the morning, I think we've demonstrated that why we have such significant confidence in our cash flows. Everything from the recontracting profile that we see going forward, and again, very confident about to the build-out of the repowering Genesee 1 and 2. And, of course, the activities and derisking the short term through hedging both natural gas and power, but as well on the sustained maintenance perspective, just lower costs for the next couple of years.

So, on that strength, on that firmness of cash flow is why we've gone out and suggested and actually provided guidance that we see a dividend increases 5% per year through to 2025. But also, what you've heard is, the excitement that we have around the opportunity to reduce our emissions profile. We -- and I think it's evident. We do believe that it is a huge issue for Canada and the world, and we're responding to that. We're actually doing things to reduce the emissions profile, not by reducing our generation, not by selling generation, but actually taking what we have and reducing the carbon profile and continuing to provide low-cost, reliable service in the areas that we serve.

So, I hope you share our excitement about Capital Power. And again, thank you very, very much for taking the time this morning to get refreshed on Capital Power, what we're doing and where we're going. And again, thank you very much. And hopefully, next year, we can do this in-person. Thank you.