Capital Power – 2020 Investor Day
December 3rd, 2020

Corporate Participants

Randy Mah - Director, Investor Relations
Brian Vaasjo - President and CEO
Kate Chisholm - Senior VP, Planning, Stakeholder Relations and Chief Sustainability Officer
Darcy Trufyn - Senior VP, Operations, Engineering and Construction
Bryan DeNeve - Senior VP, Business Development and Commercial Services
Sandra Haskins - Senior VP, Finance & CFO

Conference Call Participants

Maurice Choy - RBC Capital Markets
John Mould - TD Newcrest
Naji Baydoun - Industrial Alliance Securities
Patrick Kenny - National Bank Financial

Presentation

Slide 1

Good morning and welcome to Capital Power's 12th 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 news release highlighting how Capital Power is accelerating its plans towards a low carbon future which we'll be covering in greater detail today.

Slide 2

Before we start with the presentations, I'll go over our standard disclaimer regarding forward-looking information. Certain information in today's presentation and responses to questions contain forward-looking information. I ask that you refer to the forward-looking information disclaimer 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 the management team that are presenting today. We have: Brian Vaasjo, President and CEO; Sandra Haskins, Senior VP – Finance & CFO; Kate Chisholm, Senior VP, Planning & Stakeholder Relations & Chief Sustainability Officer; Bryan DeNeve, Senior VP – Business Development & Commercial Services, and Darcy Trufyn, Senior VP - Operations, Engineering & Construction. The management team also includes Chris Kopecky Senior VP & Chief Legal Officer and Jacquie Pylypiuk, Senior VP – People, Culture & Technology.

Slide 4

This is the agenda for this morning. We'll start with presentations by Brian Vaasjo, Kate, and Darcy, and then we'll take a 5-minute break. After the break, we'll hear from Bryan DeNeve, Sandra and conclude with Brian Vaasjo. After all the presentations are done, we will then respond to questions from our analysts. Okay, I'll turn it over to Brian to kick things off.

Slide 5

Thank you, Randy and good morning. I would like to thank you all for joining us for Capital Power's 12th investor day. We appreciate your continued interest and support. This is a very exciting investor day for Capital Power. This morning we announced the repowering of Genesee 1&2, Capital Power will be off-coal in 2023, the 75 MW Enchant solar project and a 25-year contract covering our 40.5 MW Strathmore solar project. These developments together, with other initiatives, are accelerating Capital Power to a low carbon future.

Slide 6

At our 2017 investor day, I shared with you that we believed that decarbonization was driving our industry, government policy and technology development. What we determined then was a strategy of growth in wind and future development of solar was one of the most resilient strategies available to us. We have followed that strategy and is now proving out. The second strategy was investing in well positioned natural gas assets with a view that natural gas was critical to the North American transition to a low carbon future. This too is playing out with our investments in natural gas assets, including the repowering of our Genesee units. This resiliency of the natural gas strategy is further supported by the evolving significant international interest in hydrogen technology and in carbon capture and utilization. Last year we set a target of becoming net carbon

neutral by 2050. With today's announcements we are accelerating to that future. Our drive for innovation and optimization will ensure meeting or exceeding our target. Importantly, we are achieving this acceleration without sacrificing shareholder value and expect to continue to deliver a 10 to 12% total shareholder return.

Slide 7

Before discussing these announcements any further, I would like to talk about Covid-19, the reason we are meeting virtually today. Our primary objective has been to keep our employees and their families healthy. Darcy Trufyn will speak to some of the measures we have taken in the plants which thus far have been very successful. Despite the challenges of Covid-19 our operations people have managed through seven major planned outages which Darcy will also speak to in a few moments. Corporately our non-plant staff continue to work remotely which has turned out very well. We have seen no reduction in either efficiency or effectiveness. Perhaps the only positive aspect of Covid-19 is we have learned numerous new approaches to work at the plants and we have realized that a flexible office work environment can have numerous positive elements. Capital Power will be very different post Covid-19.

Slide 8

What differentiates us from many who are transitioning towards a low carbon future is that we have a strategy that defines a pathway and we are on that path. With the retirement of Southport and Roxboro next year and the Genesee repowering program, we will be off coal in 2023. Our recent success and expected greater future growth in renewable generation further accelerates our fleet to a lower carbon profile. Our investment in reliable, affordable, and flexible natural gas generation facilitates greater renewable penetration and with emerging carbon reduction technology our natural gas strategy will contribute to a net carbon neutral future. Kate Chisholm will speak to the key elements of this pathway in a few moments.

Slide 9

Today's announcement of Capital Power repowering Genesee 1 & 2 by itself helps close the 2030 Paris target gap of 77 mega tonne by 2 to 3 mega tonnes alone. It will deliver, depending on financing, AFFO per share in the order of 70 cents on average for the first 5 years and the project is forecast to deliver returns well above our target hurdle rates. We are deploying the best-in-class natural gas combined cycle technology available which includes carbon capture readiness as well as a very low-cost path to hydrogen capability. It increases the total capacity of the Genesee facility by 560 MWs and reduces the carbon intensity of G1&2 to 0.35 tonnes per MWh. This is below the 0.37 tonnes per MWh under the Alberta TIER program so G1&G2 may well generate carbon credits.

G1 and G2 will be the most efficient combined cycle natural gas plants in Canada. Bryan DeNeve will discuss the competitive heat rate advantage Genesee 1 & 2 will have over all existing and announced combined cycle facilities in Alberta. Achieving a facility cost per MW of under $700,000 and a heat rate in the mid-6s takes more than simply buying the right equipment. Our 5-year GPS project, numerous other Genesee innovations, excellent maintenance and the design of our new facilities all contribute to this very low cost.

Slide 10

Innovation has also led to acceleration in our renewable generation growth and a much broader base of opportunities in North America. As Bryan will discuss we continue to move forward with wind opportunities but the real exciting development though 2020 has been our success on the solar front. Today we announced our fifth solar project in 2020, the 75 MW Enchant solar project. The 25-year contract for the 40.5 MW Strathmore solar project exhausted our available solar capacity for marketing in Alberta. The Strathmore 25-year contract we announced today and the 3 solar projects in North Carolina, which are each contracted for 20 years, confirms our competitive capability in solar.

Slide 11

Natural gas continues to be key to Capital Power's future and the transition to a lower carbon future. We continue to be selective in the markets we invest in and the assets which provide additional or unique benefits to those markets. Complimenting these investments are the

continued development of carbon reduction technologies such as our investment in C2CNT which we expect to be at 40% at the end of this year. We continue to move forward with our Genesee Carbon Conversion Centre which should be operational near the end of 2021. What in large measure makes us competitive with natural gas is our commitment to operational excellence and our drive for optimization. An example of this, is great physical and commercial work at our Decatur facility where we are adding 90 MWs of capacity while significantly improving the heat rate. Both of which contributed to a 10 year extension to our existing contract.

Another example is moving to advanced pattern recognition which utilizes data and artificial intelligence to detect patterns that can lead to optimization and a much more sophisticated preventative maintenance window. Most of our operation innovation efforts are rolled into what we refer to as Ops 2030. In addition to value already delivered, we expect this program will deliver an additional EBITDA improvement of $50 million per year by 2030.

Slide 12

From a financial perspective our cashflow in 2020 continues to be resilient. 2020 is expected to end at or better than the targets we set last December. For 2021 strong power prices essentially offset the Genesee units moving from contract to merchant, an increase in carbon tax and the retirement in early 2021 of our two North Carolina plants. Our dividend guidance for 2021 and 2022 is unchanged. 2021 is a very big year for development spend with Whitla 2 and 3 complete by the end of the year, five solar farms moving forward and the Genesee repowering. We do have a committed capital target of $500 million for 2021 and we will continue to follow our disciplined approach to investing. As Bryan will describe the general market dynamics are good for further growth.

Slide 13

Before I turn it over to Kate to speak to sustainability and ESG, I would like to say we are moving forward on all three ESG fronts. Most of what we are doing from the environmental perspective is obvious. Capital Power continues to make great progress with what we are doing in the Social and Governance areas as well. But more importantly it is becoming more and more engrained in what we do and the decisions we make. Not because of the various pressures, but because they are the right things to do. I will now turn it over to Kate.

Slide 14

Thanks Brian. Good morning everyone. I now have the privilege of walking you through our 2020 ESG performance and updating you with respect to Capital Power's progress toward its sustainability targets. I will deal with the "E" part first.

Slide 15

In many regions that lack other flexible generation sources, strong renewable growth can only happen if enabled by more flexibly dispatchable generation than hydro or nuclear. I mention hydro here because, in jurisdictions like Alberta, very dry years can interrupt supply and run-of-river "must-run" conditions can make units a lot less flexible. We believe that, in this context, natural gas should not be considered an alternative to renewables but rather a necessary complement. In these same jurisdictions, battery storage will enable intra-day shifting, but inter-day shifting and seasonal storage will require a major technology shift. By contrast, natural gas can produce 80MW/acre, is relatively affordable and can be placed wherever it is needed on the transmission system. It's also generally available whenever you need it, compared to wind's 35-40% and solar's 30% capacity factors.

From a financial perspective, including emission-free "firm" generation in the climate solution will significantly reduce the cost of decarbonization, because of the unpredictable intermittency of wind and solar generation. According to the Brattle Group, costs exponentially rise in a renewables-and-storage-only system because to completely correlate renewable output so that it's 100% available 24 hours/day year-round would require such a significant over-build to meet load. Simply put, we strongly believe that creating the non-emitting, but reliable and affordable grid of the future will require an all-of-the-above approach: a significant build-out of renewables, shaped intra-day with batteries and inter-day by decarbonized natural gas.

Slide 16

It is for this reason that Capital Power's been pursuing CCUS in earnest since 2007. We distinguish carbon conversion from other forms of CCUS because so many people automatically associate the "U" part of CCUS with enhanced oil recovery, and the "S" part typically refers to underground storage, whereas carbon conversion results in products that render carbon completely inert and harmless. In a nutshell, Capital Power's natural gas strategy is two-pronged. First, it involves capturing CO2 emissions from our flue gas and converting it into products that can be sold to raise revenue that offsets the cost of capture. Eventually, if enough demand can be created for carbon products, direct air capture units will become independently economic and earn offsets or credits that can be applied to enable our natural gas generation to be even less carbon intensive.

Second, we'll be further exploring green and blue hydrogen technology that would eventually enable physical decarbonization of these assets.
We share our carbon conversion strategy with numerous others who've begun making plastics, methanol, building materials, solvents, synthetic rubber, hydrogen, batteries, electronics, automobiles, vodka, detergents, soap, fertilizer, furniture, packaging, clothing, shoes, and jewelry from captured carbon. Captured CO2 can theoretically be made into any kind of fuel or chemical that's currently based on petroleum. The trick is figuring out how to do it so the product is cost-competitive with fossil fuel-derived products and ends up benefitting the environment. In fact, various analysts estimate that by 2030, CO2-based products could be worth between $800 billion and a trillion dollars, and the use of CO2 just for producing fuel, enriching concrete and generating power could reduce GHG emissions by a billion metric tons per year. The Global Carbon Initiative further projects that, with the proper incentives, the overall CO2-based product industry could utilize seven billion metric tons of CO2 each year – about 15% of our current global emissions by 2030.

Slide 17

By continuing this work, we see this as a plausible pathway to net carbon neutral. These are all strategic steps within our long-term plans and reflect our current thinking at a very high level. We believe this pathway will allow us to reach our goal of net carbon neutral by 2050, in a way that keeps electricity reliable and affordable while also reducing our emissions and contributing to the achievement of Canada's climate goals. Capital Power believes in climate change and we want to help.

Slide 18

Of course, at the same time, we want to reward Capital Power's shareholders by continuing to grow. Through our continued build out of renewables and the application of innovation such as CCUS and hydrogen to our natural gas assets, we believe we can achieve both growth and emissions reduction. As for progress toward our sustainability metrics.

Slide 19

Our Genesee repowering not only allows us to meet out 2030 target six years early, it creates a nearly 6 million tonne carbon reduction broken down into: a 3.4 million tonne carbon reduction at Genesee, and a further 2.5 million tonne reduction by displacing higher-emitting generators up and out of the merit order.

Slide 20

We are also on track to meet our fleet emissions reduction target and will ensure that it provides a guidepost for our future growth.

Slide 21

With respect to the "S" part of ESG, Capital Power believes its employees are its most valuable asset so supporting employee well-being is a business imperative. We've always offered generous time-off, flex time and benefits programs to support our employees in their efforts to manage their physical and mental health, but we have added some pretty unique offerings in the current challenging times, including: Telemedicine services that provide 24/7, virtual access to healthcare professionals who can provide remote medical advice and treatment; and Medcan's Medical Advisory Service which provides medical advisory services to our Occupational Health & Safety team to ensure we have the right protocols to keep our plant employees safe and the safest plan for the return of our remote workforce. We were also one of the first to move our corporate

work homeward and tailored our flex time program to help employees for whom work from home needed to better accommodate home schooling children or senior care.

Turning to “Governance”, we’re exceedingly proud of the gender diversity milestones we’ve hit and we’re equally proud of the fact that fully 25% of our Executive compensation is based on our ESG performance. In addition, we were again the only Canadian utility with an A- from the Carbon Disclosure Project, and one of only three Canadian companies and the only utility in Canada to be named by Ethisphere as one of the world’s most ethical companies.

Slide 22

In summary, we’re on track to fully meet all of our sustainability targets and we believe that the resilience, innovation and optimization that lie at the core of Capital Power's culture are helping us to contribute to a reliable and affordable, low carbon future. Thank you. Now I’ll pass the mic over to Darcy.

Slide 23

Thank you Kate and good morning. My presentation today highlights 3 key areas: operations excellence and resiliency and on resiliency, I’ll discuss how we’ve handled Covid. I’ll then talk about how we continue to add value to our assets and provide an update to our 10 year optimization and digitalization program. And lastly, I’ll discuss how we at Capital Power from an engineering and construction perspective are building a low carbon future through Genesee repowering and the seven renewables projects we are currently designing and constructing.

Slide 24

This map of North America shows all of our existing operating assets and new project sites under design and construction. We currently have 28 facilities with 6,500 MWs of generation capacity across North America. While we are geographically diverse our operating structure retains central control and that has proven to be very effective and efficient. We have great management and staff at all of our plants who work to company standards, processes and requirements and so even during the pandemic we know with confidence how our plants are running and what they are working on. From a project perspective we have the 3 solar projects in North Carolina and the 4 renewables projects in southern Alberta all underway. All of these will be managed out of Edmonton with key construction staff located at the sites.

Slide 25

We have earned a reputation for being a very good operator and again this year in spite of the pandemic we continue to achieve high availability and are tracking to finish slightly better than budget at approximately 94%. Our target for next year is the same as 2020 at 93%. The last 2 years budgets are slightly lower than the 95% average availability we’ve achieved since 2014 because in both 2020 and in 2021, we scheduled some longer major outages. For 2021 in addition to Genesee 2, those major outages are at Decatur and Shepard. 2022 should see us return to a higher fleet availability.

Again, in spite of Covid we were able to make numerous improvements to our assets including the installation of the second of three combustion turbine hybrid rotors at Decatur which greatly improved output and heat rate; the construction of a new evaporation pond at Arlington which significantly increases the capacity utilization of this facility. We also installed the permanent gas line to Genesee which can now handle all future gas requirements for this facility including repowering. And we continued to make investments in our DCS across the fleet. This investment is required from an operating perspective not just for today, but it is also the foundation for tomorrow as we digitalize our operations and as well it enhances our cyber security protection. We have also made numerous improvements to our renewables fleet which I’ll speak to later. And lastly something that was expedited because of Covid was that all of our simple cycle plants can now be safely operated remotely by our operations staff. So basically the control operator can be at home running the simple cycle plant with his laptop, safe and cyber secured.

Slide 26

Now I’ll talk a bit about Covid. We were very early to implement strict measures including screening protocols and restricting our plants to essential

workers and having all non-essential staff work from home and it remains that way today. In addition, our response to Covid has been fleet-wide in many cases far exceeding the local Covid protocols. A lot of good work has gone into keeping our staff safe and our plants secure. For example, we've isolated our control rooms which is the heart of the plants and even installed hospital grade UV equipment to help sterilize these control rooms. We've created emergency plans to operate each facility with a minimum staff and stockpiled food and prepared site accommodations to enable us to continue to operate in the event any of our facilities faces a serious Covid infection. Fortunately that hasn't been required. While we have had a few staff contract Covid, all were infected outside of work and there has been zero staff infection at work.

For the first few months of Covid we were doing only the critical work to keep our plants running safely. We now are in a sustainable mode and can handle Covid for whatever duration is required. We have learned how to work with Covid protocols, our major outages have for the most part been completed and things like sustaining capital and maintenance projects that maintain our high availability are also getting done. The one exception is Genesee, where we have chosen not to do any major outages during Covid. Now the outages for our Genesee units are very large involving several hundred workers, 3 or 4 times larger than any of our gas outages. While we know we could do a Genesee outage during Covid, from a risk perspective we'd prefer to avoid it. The excellent condition of our Genesee facility allows us that flexibility. So for 2021, we have one outage planned and that is at G2 but it is scheduled for next fall when we are hoping Covid will have abated significantly.

A benefit that has subsequently arisen is that because we are now proceeding with repowering on G1 and G2, the scope of these unit outages will be reduced as some of the equipment, for example the boilers will be near end of life. Before I move on to talk about repowering, I do want to acknowledge the great work of our North Carolina O&M staff who not only are dealing day to day with Covid but also the 2021 closure of North Carolina facilities. We sincerely appreciate all their hard work and efforts as we bring these facilities to a close.

Slide 27

As noted in our release today, Capital Power is proceeding with the repowering of Genesee units 1 and 2. Over the next four slides, I am going to provide you with some of the technical details of this exciting project. The capital cost to build these 2 units is $997 million and total output is 1360 MW. Baseload heat rate is between 6600 and 6700 kj/Kwh, which will make these 2 units the most efficient combined cycle units in Canada. A key execution strategy is to have the CT's completed to run in simple cycle mode generating 400 MW each about 12 months ahead of the combined cycle COD's. Together the 800 MWs effectively replaces the existing coal outputs from these 2 units allowing us to shut down the existing units to complete the combined cycle construction with minimum actual loss of power to the grid.

We are using the absolute latest technology from Mitsubishi, their largest and most efficient J-AC class. These will be the first 2 units in Canada and some of the first in north America using this advanced technology. Some of you may recall that through our Genesee emission improvement program, which we called GPS, we were upgrading the low-pressure rotors on both steam turbines. These rotors now very much help with our low heat rate and beyond that we are intending to squeeze even more efficiency by upgrading the High and Intermediate Pressure rotors on both STs as part of repowering. We are designing and constructing the facility for a 35 to 40 year life. This means we are using the right materials for high temperature piping, equipment, etc. and not reducing quality. The CTs will be 30% hydrogen ready at COD and upgradeable at a modest cost post COD for 95% hydrogen and we've also made provisions for carbon capture and utilization so G1 and G2 are being built for the future.

Slide 28

This schematic shows the equipment arrangement of one of the existing Genesee units. The boiler and the coal system is used to create the steam that feeds the steam turbine, ultimately generating power to the grid.

Slide 29
Now in this phase you see the new combustion turbine installed adjacent to the coal facility. At this point, the boiler is still connected to the steam turbine and fully operating. It's just not shown on this schematic. The new CT has a separate stack and it's independent of the existing steam plant allowing us to achieve early COD on simple cycle with an output of 400 MW per unit.

Slide 30
Once we've achieved simple cycle COD, we can retire the existing boiler, install the HRSG, interconnect all the piping to the existing ST and complete the combined cycle plant. Note the dotted line separating the new equipment with the existing equipment. Without getting in to details, one of our main cost advantages is that our operations and engineering staff have done an excellent job maintaining and servicing the existing equipment and infrastructure, and so much of the existing plant will be utilized for repowering, saving literally hundreds of millions of dollars.

Slide 31
This is an aerial rendering of Genesee after G1 and G2 are repowered. We are on the southwest side of the plant basically looking north east. The new G1 and G2 CTs are in the foreground, just west of the existing G1 and 2 powerhouse and you can see the first 2 stacks which provide early simple cycle operation. Next to the first pair of stacks are the HRSGs and then the second set of stacks for combined cycle operation are shown nearest the powerhouse. A lot of value engineering has gone into our plan. So in this rendering I'll point out a few key attributes.

The first is the tight footprint of the new repowered units which reduces quantities. Note the CTs are outside and the only enclosures are on parts of the HRSGs so major savings on building costs. Another is the location itself. By locating on the west side, we are minimizing interconnects to the existing STs. And the last thing I'd note, we do gain construction savings by building two identical plants in parallel but in addition over the years as operators we have really benefited from having two identical plants G1 and G2 from a parts and knowledge perspective. The repowered identical G1 and G2 units will carry that same operations advantage well into the future.

Slide 32
This is the schedule for the outages leading up to repowering and for the repowering key milestones and as you can see, this schedule shows us being off coal in 2023. As I previously noted, the upcoming G1 and G2 outages have been optimized to reflect 2023 end of life for the boilers. The combined facility at baseload is expected to reduce annual CO2 emissions by 3.4 million tonnes versus 2019. We have a great workforce at Genesee, but these changes do mean a reduction to our staffing levels. We will provide support to our employees and the community as we transition the facility to natural gas.

Slide 33
This slide shows the seven renewable projects that we now have under development with COD staged between Q4 2021 and Q4 2022. Capacity of these seven projects is in excess of 425 MWs with total costs of approximately $665 million CAD dollars. I am confident that our experienced construction and engineering teams will deliver these projects in accordance with our track record of projects done on time and on budget. And now with five solar projects underway, I am optimistic that we will be able to lever our volume to hopefully improve on our financial objectives.

Slide 34
Over the past decade, we have honed our skills on wind development and gone from commodity pricing to technological solutions. We have become very skilled at designing purpose-built solutions for our windfarms and at analyzing our costs for the entire lifecycle. And all the while, we've been on a continuous improvement journey, constantly looking at what can we do better. As many of you know we were bold with our design and execution strategy on Whitla 1, and it was a major success. And for Whitla 2 and 3, we've even made further improvements. From an operations side, we continue to look at ways and means to add value, things like our remote ops center and there are numerous things that we have done to improve our capture factor and reduce our operating costs. And as we previously announced, we have been successful at crystalizing material value for nine of our windfarms with new long-term service

agreements.

From a solar side, we started dabbling in solar about 7 years ago and were able to build Beaufort solar successfully back in 2015. As we all know solar is a very competitive industry, so it has required more work from us to become knowledgeable and competitive. What we didn't want to do is lower our expectations to win work. We wanted to win work smartly. We believe we are there now. Our knowledge of the solar industry has advanced to where we can now use technical engineering and construction strategies to help drive and create value. So I am very optimistic that our proven skills and competitive expertise that has been developed in wind, will now be replicated in solar.

Slide 35

We are now wrapping up the first year of our new optimization and digitalization program called Ops 2030. Creating new value from our existing assets significantly enhances shareholder value and we are confident we can create another $50 million of new value over the next decade. This is in addition to the many improvements to our operating assets we've already made, things like Decatur's hybrid rotors. We've been on the optimization journey for years. Ops 2030 expands that scope to incorporate technology and digitalization which is changing at lightning speed. With our existing historian system we collect approximately 170 thousand data points every 10 minutes and currently have about 90 billion data points in the historian, but that data is used more reactively at our facilities today.

Plants over the years were built independently and operated independently. Now imagine if you took all that data and synchronized it and used it real time to look forward and had the ability to compare the performance of various components between plants. The benefits will be huge. Brian spoke about our advanced pattern recognition efforts and simply this is about using some of this data proactively to extend the life of our parts and detect issues before they become problems and add significant value moving from time-based to a risk-based maintenance program. On automation and digital tools, this is all about innovation, digitalization, etc. We are piloting and advancing the use of digital tools and automation for near term benefits and for what we see as future major benefits as technology evolves. So whether it is higher or more reliable output, better efficiencies, lower emissions, or lower O&M costs, we see huge opportunity going forward for Capital Power.

Slide 36

So in summary, from an operations perspective, Capital Power continues its excellent year over year performance and has demonstrated operational resilience through its Covid actions and in spite of the pandemic we continue to improve and enhance our assets. Capital Power is building a low carbon future through significant repowering and renewables growth. The repowering of Genesee is extremely cost effective given the excellent condition of the existing facilities and the innovation used in the design and execution strategy. And Capital Power is utilizing its construction and engineering expertise to help expand our renewables technology mix to include solar. Optimization through innovation and digitalization is well underway and will add significant value to the existing assets in the years to come. Capital Power is on a journey to a low carbon future. Now we are going to take a 5 minute break. Following the break, Bryan DeNeve will be our next speaker.

Slide 37

Good morning. The following are the key messages I want to leave with you regarding Capital Power's ongoing delivery of growth. Our expected returns on growth opportunities and our existing assets support a total shareholder return of 10% to 12% over the long term. We will continue to execute on sufficient opportunities to deliver at least $500 million of capital growth per year to ensure effective deployment of discretionary cash flow. Our expected growth will support our long term sustainability objective of a 65% reduction in emission intensity by 2030 and our longer term objective of net carbon neutral before 2050.

Slide 38

This slide summarizes Capital Power's technology strategy. At the center of the strategy are the technologies which we currently pursue as growth opportunities. The development and construction of new solar and wind assets are expected to

comprise at least 50% of our future growth. Wind development is continuing with the expansion of Whitla Wind in Alberta. Solar is a new addition this year and reflects our recent success in being able to competitively develop two solar projects in Alberta and three solar projects in North Carolina. The natural gas component is primarily focused on the acquisition of mid-life assets that are located in key geographies where natural gas is expected to continue to provide reliability and are well positioned for recontracting.

The outside ring are those technologies that are being closely monitored and evaluated since they are expected to eventually form part of our growth strategy. For example, we are evaluating the addition of storage at our Arlington and York facilities as compliments to the assets. Storage is also a key element to providing renewable supply which matches a customer's load profile. Hydrogen and carbon capture are both gaining increased attention as we recognize one or both will play a key part in our net carbon neutral objective before 2050. We are evaluating and expect to have a demonstration project for hydrogen in the latter part of the next decade following the Genesee 1/2 repowering.

Slide 39

Capital Power's growth essentially falls into two categories. The first category is our investment in emission free renewables across Canada and the U.S. Over the course of 2020, we have completed construction of one wind facility, acquired one wind facility and commenced construction on two wind projects and five solar projects. It has been a transformational year for Capital Power in leveraging our expertise to successfully pursue and compete for solar projects that meet our target returns. We also have the internal capabilities and are competitive on acquiring older renewable assets where we can bring our operational expertise to enhance returns. In terms of the future, we will be working to integrate storage into our renewable development pipeline.

The second category is the acquisition of critical mid-life natural gas generation. Our last acquisition was the Goreway combined cycle facility in Ontario which has exceeded expectations in 2020. Acquisition opportunities slowed in 2020 as a result of Covid-19 but we believe there will be a recovery in the number of natural gas acquisition opportunities in 2021. Another element of our natural gas growth strategy is the optimization of existing assets through new investments such as announced investment in Genesee 1 & 2 repowering and capacity expansion at Decatur.

Slide 40

As shown on the map, Capital Power has a diversified pipeline of 26 development sites across Canada and the US for wind, solar, storage and natural gas opportunities with total potential capacity of 3600 MW. As I will speak to later in my presentation, seven of the development sites are proceeding to construction. This development pipeline coupled with acquisition opportunities is expected to result in at least $500 million of additional growth capital being committed in 2021.

Slide 41

Government policy combined with corporate ESG priorities are expected to continue to drive a dramatic increase in new renewable installations in the US and Canada over the next decade. The installed renewable capacity is expected to increase by 264% by 2040 which means an additional 465,000 MW of installed wind, solar and storage capacity in the US. The large growth in renewables is driven by a multitude of factors: government policy incentives are created through tax credits and state renewable targets. These are expected to continue under the new administration in the US. Continuing advances in technology which are reducing relative costs and resulting in increased efficiency. Storage is facilitating renewable growth by reducing the disadvantages of being an intermittent energy source. ESG investing is driving large electricity customers to more closely link their electricity consumption directly with renewable electricity production. Our recent break through on the solar front more than doubles our growth opportunities in the renewable space.

Slide 42

This slide summarizes the growth in corporate demand for renewable offtakes as corporate entities take action to improve their ESG performance. In Alberta alone, there has been

500 MW of announced PPAs while the US has seen over 40,000 MW of corporate offtake agreements. The announced sustainability targets by corporate entities are substantial with Amazon, Nike, TELUS, Facebook, Walmart and Lululemon all targeting to be 100% renewable. In addition, there is a growing trend for these corporates to be net carbon neutral which will require a combination of renewables, storage and/or clean natural gas fired generation in the future. The number of companies with similar targets is expected to grow as net neutral carbon targets become more prevalent.

Slide 43

In the US, Capital Power has completed the Cardinal Point Wind project ahead of schedule and on budget, acquired the Buckthorn Wind project in Texas and is proceeding with the construction of three solar projects in North Carolina which will be completed in 2022. These projects are expected to generate levered returns of 9% to 11% and have a weighted average contract life of 15 years.

Slide 44

The other region with significant renewable growth has been Alberta where Capital Power is proceeding with an expansion to the Whitla Wind project, which will be completed by the end of 2021, making it the largest wind development in Alberta and two solar projects with target CODs in 2022. Alberta has become a material source of renewable growth given the large number of corporate entities looking to enter long term contractual arrangements for renewable power to meet their internal sustainability targets. In addition, Alberta renewables produce carbon offset credits which Capital Power can utilize to meet its carbon compliance obligations.

These projects represent $400 million of capital investment and will generate levered returns of 9% to 12%. The projects are expected to be accretive to AFFO per share by 17 to 39 cents depending on how much of the equity is ultimately financed by internally generated cash flow. It is also important to note that Capital Power has executed a 25 year contractual agreement for 100% of the output from the Strathmore Solar project.

Slide 45

The Strathmore project has a fixed price, 25-year offtake agreement with a large national investment grade corporation for the full output of the project. This demonstrates our ability to put in place long term contractual arrangements for Alberta renewable assets.

Management continues to pursue wind and renewable offtake contracts that contemplate a wide range of structures to fit the particular needs of the customers. For example, some customers in Alberta are looking to purchase a combination of low emission intensity power that matches their hourly consumption profile. This is a growing trend among corporate entities looking to go the next step of ensuring their overall consumption is moving to net carbon neutral. Capital Power has also recently announced three solar projects in North Carolina which have 20-year offtake arrangements with Duke.

Slide 46

As covered by Kate, even though the utilization of natural gas facilities will decline over the long term with the build out of renewables, there will still be a need for their reliability and flexibility. This is especially true for geographic locations will large industrial loads that need electricity on a 7x24 basis and in regions with less reliable wind and solar resources. As shown on this slide, there is a projected addition of 205,000 MW of new natural gas generation in the US over the next 20 years as it replaces coal and ensures reliability can be maintained on the system with the large addition of renewable generation. The significant growth in natural gas facilities will be consistent with a net neutral carbon future through the progressive implementation of hydrogen firing and post combustion capture. The vast majority of new natural gas additions is expected to occur at existing brownfield thermal sites given the ability to leverage existing transmission infrastructure and close proximity to load centers.

Slide 47

Capital Power will invest up to $997 million to repower the Genesee 1 & 2 units by 2023 and 2024 respectively. As Darcy explained, the repowering will utilize the existing steam turbines, generators and switchyard and will add a new combustion turbine and HRSG for each unit. The

repowered units will have a total capacity of 1360 MW which represents incremental new capacity of 560 MW to the Alberta grid. The project is expected to generate a levered return of 20% over just the first 20 years of the new facilities' life. The project will add 43 to 96 cents to AFFO per share depending on the amount of equity that is ultimately funded through internally generated cash flow. These returns don't include any cash flow benefits over the last 15 years of the facilities life which is assumed will require hydrogen firing or post-combustion carbon capture in order to achieve Capital Power's net neutral carbon target before 2050.

The project is expected to reduce power prices over the initial years post-COD which will reduce the margins on our existing merchant facilities in Alberta. However, the reduced margin on Capital Power's existing units has been taken into account in the overall economics I have just outlined. The strong returns are driven by reusing existing infrastructure and Mitsubishi's latest J Class combustion turbine technology which will result in the repowered facilities having the lowest gas-fired heat rate in Canada outside of the cogeneration units in the province. In addition, the overall carbon intensity will be 0.35 t/MWh which is a significant drop from 0.93 t/MWh under coal firing and will come in under the 0.37 t/MWh threshold of Alberta's TIER carbon compliance program in which case the units will actually generate carbon credits.

The other driver behind the strong returns is the reduction in operating costs and low capital costs. Average annual fixed plant O&M will be $12 million lower while average annual sustaining and maintenance capex with be $6 million lower. As Darcy explained, our construction execution and contracting strategy is facilitating low capital costs.

Slide 48

A low heat rate is critical in Alberta's energy only market if that unit is expected to recover its initial investment. As shown on this slide, Genesee 1 and 2 will see a decline in variable production costs of $18/MWh which will drop them 5000 MW in the merit order which will ensure ongoing baseload production. The least efficient units, which are the older coal to gas conversion units in Alberta, will see their utilization drop which is expected to drive at least one of the older units to retire earlier as a result of the repowering of Genesee 1 and 2. Genesee 3 is expected to continue with a high utilization given it is the most efficient of the older units in the province post repowering of G1/G2.

Slide 49

The strong economics behind Genesee repowering can also be seen through the comparison to other recently announced natural gas projects in Alberta. On a $/kW basis, the G1/G2 repowering has a capital cost that is 29% lower than the Sundance 5 repowering and 56% lower than the Cascade combined cycle project. In addition to the lower capital cost, the repowered Genesee unit will have a significant heat rate advantage given the use of the latest J class combustion turbine technology.

Slide 50

Genesee is well positioned to be a leader in the transition to a net carbon neutral thermal generation site for the following reasons. There is strong momentum in Alberta to move towards a hydrogen economy, some saying $100 billion opportunity. Alberta could emerge as Canada's first hydrogen energy hub, centered in the industrial heartland near Edmonton and Genesee. The Genesee site is in close proximity to caverns for storage and older oil fields which are well positioned for CO2 enhanced oil recovery. This will facilitate the production of hydrogen through steam methane reformation as well as post combustion capture at the Genesee site. Genesee is located at the terminus of the north south DC transmission line which makes it a natural location for continued electricity production without incurring large transmission costs. The new combustion turbines will be positioned to burn up to 30% hydrogen at COD but will also be ready to be retrofit to burn up to 95% hydrogen at a very low incremental cost. Capital Power will be building the world's largest commercial scale facility for the production of carbon nanotubes using CO2 capture from the Genesee 3 flue gas.

Slide 51

The Genesee Carbon Conversion Centre will capture flue gas from Genesee 3 for its CO_2

source to create carbon nanotubes through electrolysis. At full capacity, the Centre will capture 30,000 tonnes of CO2 per year and produce 7,500 tonnes of carbon nanotubes per year. Phase 1 of the facility will be operational by Q4 2021. Deployment of C2CNT's technology at Genesee will only marginally reduce Genesee's emissions, but has extraordinary potential to reduce CO_2 emissions across a broad range of other industries through use of carbon nanotubes in a variety of applications. For example, adding carbon nanotubes to cement as an admixture at 0.05% can theoretically increase tensile strength by up to 45%. Assuming this 45% increase, 2,500 tonnes of carbon nanotubes have the potential to displace approximately 2.3 million tonnes of cement and associated CO_2 emissions from that cement production of 2.1 million tonnes.

Management is currently focused on developing the market for CNTs in concrete application. In the Canadian Prairies, the total potential carbon nanotube market for admixture for ready mix applications is approximately 500 tonnes per year. As the immediate application of carbon nanotubes in concrete will not exhaust the supply from the Carbon Conversion Centre, Management is pursuing the application of carbon nanotubes in other target industries including tires, batteries, anti-corrosion polymers and carbon fiber. The key to these markets materializing is C2CNT's patented technology which will produce carbon nanotubes at a cost that is a fraction of existing technologies.

Slide 52

Another example of growth associated with our existing assets is the upgrade at Decatur which will add a total expansion of 90 MW of capacity which has been incorporated into a 10 year contract extension for the facility.

Slide 53

Outside of Alberta, Capital Power's key markets are Ontario, US Southeast, US Midwest, ERCOT and Desert Southwest. Ontario will need its existing natural gas assets to meet reliability due to the Pickering Nuclear Station retirement in the early-mid 2020's, the ongoing nuclear refurbishment program at Bruce and Darlington and recovering demand growth. Capital Power's assets will be critical to meet reliability and therefore have a high likelihood of being re-contracted. York, East Windsor and Goreway all offer unique operating characteristics and provide a significant amount of operating reserves to the system. The solar resource is strong in the US SE, and it will continue to grow as a supply source. Significant coal generation is expected to be retired over the next few years which will lead to gas replacing coal to provide reliability and flexibility to the system.

MISO North is moving from coal to gas with 25,000 MW of coal retirements over the next 10 years which will be replaced with 20,000 MW of gas additions. Wind build out is expected to continue, with another 15,000 MW in MISO and 15,000 MW in SPP over the next 10 years. The demand growth in ERCOT is expected to exceed 1% annually. Large amounts of both wind and solar are in the queue with 25,000 MW expected to be built over next 10 years. A significant amount of older coal and gas units are expected to retire over the next 10 years.

The Desert Southwest continues to have strong market fundamentals with greater than 2% annual load growth due to population growth, economic growth and customer trends related to Electric Vehicles. The Desert Southwest is also relied on to support the supply shortfall in the California market. These trends support the recontracting of Arlington Valley beyond 2026. In order to meet growing demand and coal retirements, the Desert Southwest is expected to add 500 MW of renewables annually over next few years.

Slide 54

Electricity demand in Alberta has been negatively impacted by both the reduction in economic activity due to Covid-19 as well as the reduction in oil production due to low prices. Based on actual 30-day rolling averages, the year-over-year decline in power demand reached over 7% in June of this year. Demand started to recover as the economy re-opened and oil prices strengthened closing the gap to a 2% year over year decline by October. Demand has continued to be strong in November and has actually exceeded November 2019 demand but some of that is the result of changes in the timing of turn arounds in the oil sector. Full recovery of demand

is expected in Alberta by mid-2021 with the prospects of approved vaccines and continued strengthening of oil prices. Longer term prospects for electricity demand in Alberta remain strong due to the additional oil export capacity under construction along with the continued diversification of the Alberta economy.

Slide 55

Our Alberta baseload merchant portfolio is only 21% hedged for 2021 which is unusual for this time of year. However, the low hedge percentage is by design given we saw a significant discount in the forward prices relative to our fundamental forecast earlier this year. That discount was driven by several factors: uncertainty over demand recovery as a result of Covid-19 and lower oil prices; uncertainty over carbon pricing which has recently been confirmed at $40/tonne; and, decreased forward market buy side interest due to low power prices and low power price volatility, both driven by conservative management of generation held by the Balancing Pool.

Over the past couple of months, we have seen a recovery in power prices from $51/MWh to $59/MWh which better reflects the anticipated market fundamentals for 2021 but still holds potential upside. We have also seen increased liquidity in the market for forward hedging. As a result, we look forward to striking a balance between taking the opportunity to increase hedge percentages and optimizing our spot portfolio as we go through Q1 of next year.

Capital Power will continue to manage the Alberta merchant portfolio in a manner that has created significant trading value while significantly reducing cash flow volatility. As illustrated in the graph, Capital Power has managed to reduce the volatility of quarterly cash flows for its merchant fleet by two-thirds relative to market spot prices since mid-2009. In addition, we have realized a 20% premium in capture price for our baseload facilities through portfolio management. It is important to note that the power price captured for our baseload assets has only been less than $50/MWh for 4 of the last 45 quarters.

Slide 56

In closing, Capital Power's portfolio has continued to evolve in a strategic way that reflects greater geographic diversity, fuel diversity and sustainability. In 2014, almost two-thirds of Capital Power's EBITDA came from coal fired generation and now over two-thirds of EBITDA is from natural gas and renewable assets. This evolution will continue given the current renewable growth projects and repowering which will lead to 100% of our EBITDA being sourced from natural gas and renewable assets by 2024. In 2014, 75% of Capital Power's EBITDA was from Alberta assets and this has declined to 50% in 2020. Even with repowering, our EBITDA is expected to remain at 50% of our overall EBITDA by 2025 given the anticipated growth in areas outside of Alberta.

From a financial perspective, total shareholder returns are expected the exceed the target range of 10% to 12% given the current dividend yield on Capital Power stock of approximately 6% plus the expected annualized growth in cash flow per share of 4% to 9% over the next three years from projects that have commenced construction. I will now turn it over to Sandra Haskins.

Slide 57

Thank you Bryan and good morning everyone. Today you have heard how Capital Power is accelerating our strategy to a low carbon future and I'm very pleased to say that it will not cost our investors a penny to achieve these environmental milestones. Our investments in emissions free renewables and repowering of Genesee extends our assets lives, thereby contributing to long term cashflow that meets our return requirements. As we look out further at our ESG goals, we will continue to investigate carbon conversion, hydrogen, and storage technologies as potentially the next step to extend the life and profitability of our assets.

Slide 58

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. The excellent operational performance at our plants and ongoing optimization initiatives continue to add shareholder value. Underwriters of our insurance program have cited us as the poster child and their benchmark when they decide where to allocate capacity. This is attributed to the

thorough and diligent O&M practices employed at our facilities. The pride we take in our plants has allowed us to experience lower premium increases compared to the market average over the last two years.

As a specific example, our maintenance and improvement practices have added value to our Decatur facility. As Bryan mentioned earlier, we will have increased 2021 AFFO from the upgrades that commenced this year. Also, the 10-year LTSA with Vestas for the maintenance of all Vestas-equipped wind facilities that was executed earlier this year will reduce costs by an estimated 26% compared to current service and maintenance agreements.

You heard Bryan and Darcy speak to Genesee repowering making these facilities the most efficient natural gas combined cycle units in the province. This ensures reliable strong operating margins which under the current GHG policy mitigates an otherwise material and increasing carbon tax liability. Capital Power continues to execute on our growth strategy. In 2020, we exceeded our growth target of $500 million and currently have $655 million in renewable projects in development. This consists of 2 wind projects and 5 solar projects, 4 of which have secured long term contracts.

Slide 59

As we accelerate the decarbonization plan, our financial strategy remains unchanged with the same four principles intact. Our priority is to fund growth that is consistent with our low carbon strategy in a cost-effective manner. Our access to capital markets remains sufficient to fund our growth. The increased momentum towards ESG financing creates another avenue for Capital Power. The capital markets' recognition that decarbonization of existing infrastructure is critical to meeting global climate goals, which can't be achieved by renewable generation alone, has been a catalyst for these financing instruments. Transition, sustainability linked, and green bonds all fit strategically into our capital structure going forward.

Our investment grade credit rating remains a top priority and Capital Power is well positioned to meet or exceed rating agency expectations to maintain our current rating. Disciplined growth and financing plans are centered around the objective to remain investment grade. Dividend stability is important to both our equity investors and debtholders and therefore is a key component of our financial strategy. Annual dividend growth will target to keep us inside the payout ratio of 45-55% of AFFO and be derived from increased cashflow from growth. Capital Power has been able to access longer tenor debt which has extended our debt maturity profile and reduced refinancing risk. Historically, we gravitated to 7-year tenors to achieve the required sizing and pricing. In 2020, we issued a $350 million MTN for 12 years at 3.147% making it the second consecutive year of debt issuances with tenors beyond 10 years. We expect to refinance our 2021 US private placement maturity with similarly competitive terms.

Slide 60

The current capital allocation targets a 50/50 split between dividends and growth. We continually evaluate the right balance of capital allocation between these two, depending on where we see the best opportunity to create shareholder value. We see growth opportunities through optimizing existing assets, including investing in emerging decarbonization technologies, renewable development projects and strategic acquisitions. In periods where we aren't seeing the right growth opportunity, we would use discretionary cash flow to buy back shares or pay down debt.

Slide 61

Capital Power has a history of annual dividend increases dating back to 2013. Since that time, we have increased the dividend each year by 7% and have remained in the low end of the target AFFO payout range of 45-55%, and on several occasions, the payout has been below the target range. We are committed to annual dividend increases and our guidance remains unchanged for 2021 and 2022 at 7% and 5% respectively. As I mentioned earlier, we continually review the right level of dividend increases going forward as we consider the capital allocation that best rewards shareholders.

Slide 62

While we have achieved a 5-year AFFO

compound annual growth rate of 13%, AFFO is expected be flat year over year going into 2021. Higher power prices in Alberta are being offset by the increase in carbon tax, higher natural gas prices and the retirement of the North Carolina plants. In prior years, we have had a material year over year increase from natural gas plant acquisitions. That did not happen this year when the onset of Covid-19 brought a sudden end to the flow of acquisition opportunities. The capex committed to construction projects in 2020 will not contribute to AFFO or Adjusted EBITDA until 2022 and 2023. Therefore, AFFO guidance of $500-550 million for 2021 is consistent with the guidance provided for 2020. However, Adjusted EBITDA will increase $40 million year over year mainly due to the accelerated recognition of the off-coal compensation payment to align with the timing of being off coal in 2023.

Slide 63

The waterfall chart shows that year over year the AFFO midpoint remains flat after normalizing for the Milner Line Loss Payments related to prior periods. The $35 million reduction in Alberta Commercial, shown on the first bar, is primarily due to additional costs related to the expiration of the Genesee PPAs including carbon taxes that were previously passed through to the PPA owner. The decrease also reflects depressed spark spreads driven by the increase in natural gas prices in 2021. Under Alberta TIER, carbon prices are increasing to $40/tonne compared to $30/tonne in 2020 which, net of offset credit utilization, decreases AFFO by $20 million year over year, as shown in the second bar on the graph. The North Carolina plants, Southport and Roxboro, will retire in early 2021 resulting in lower operating margins and additional payments related to the termination of operations.

Factors driving increases in year over year AFFO guidance include: the incremental contributions from a full year of operations from Cardinal Point and Buckthorn Wind that were added in Q1 2020. Arlington and Decatur will increase AFFO by $10 million as Decatur's gross margin has increased primarily due to efficiency improvements while Arlington's gross margin is favourable in 2021 due to the major outage that was performed in 2020. Fewer outages planned for 2021 has reduced shutdown and sustaining capex and current finance expense is lower in 2021 in part due to lower interest rates on long term debt. Cash tax expense decreased from several factors including tax loss pooling in Ontario and lower US state tax. The net impact of these changes is that AFFO remains consistent with 2020 guidance after normalizing for the provision for the Milner Line Loss ruling.

Slide 64

The financial outlook provides sufficient funding in 2021 with FFO and off coal compensation of $650 million combined with the DRIP and capital market raises cover our financial obligations and a major portion of our growth capex. The $740 million forecast development capex will be funded by the excess available cashflow and utilizing the liquidity available on our $1 billion of credit facilities, prior to permanent financing being put in place. Debt refinancing in 2021 is limited to our U.S. private placement of US$230 million which matures in June and will be refinanced in U.S. dollars.

Slide 65

The capital program for the renewable development projects and Genesee repowering is spread over the next 3-4 years while being heavily front-end loaded to 2021 with $740 million of spend in the year. The total three year spend approximates the average of $500 million per annum which leaves limited capacity for additional growth without asset recycling or an equity issuance. Capital Power's track record of being on time and on budget demonstrates our ability to manage construction risk. We also view repowering to be a well-managed risk as Darcy described, as the project is on our site, with assets we know and have maintained extremely well, and the project will be managed by our own personnel. Sustaining capex for the next 5 years is forecast to remain in line with the long term run rate of $80 million to 100 million per year, on average.

Slide 66

The investment in repowering will increase Adjusted EBITDA by $140 million across the Alberta fleet in the first full year of operations in 2025 when compared to the expected contributions of the dual fuel strategy. The project

return exceeds our hurdle rates for a merchant project even based on a conservative economic life assumption, relative to the plants physical life. The high efficiency of the units places them low in the merit order and mitigates carbon tax which generates strong long term cashflow and secures Capital Power's position in the Alberta market.

Slide 67

Capital Power will continue to manage our carbon tax obligation with offsets, but the greatest impact will be from the physical reductions from moving off coal. In 2021, the carbon tax liability for Genesee 1&2 will add over $100 million of additional carbon tax expense as the liability was previously held by the Balancing Pool under the PPA. This total will decline to approximately half in 2023 with Genesee 1&2 ultimately going to zero with the completion of repowering. Genesee 3 will reduce to approximately 20% of the 2021 levels after conversion to natural gas based on the assumption that carbon tax will increase to $50/tonne. In 2025, the overall forecast carbon tax liability will be less than 10% compared to 2021.

Slide 68

The capital committed to renewables projects this year brings development capex spending to $665 million for projects that will reach COD in late 2021 and into 2022. The first full year of contribution in 2023 will see these seven projects generate AFFO of approximately $55 million and Adjusted EBITDA of $70 million in that year.

Slide 69

The current hedge position for 2021 is 21% in the high-$50/MWH range. Hedging has increased for 2022 to be 25% in the mid-$50/MWh range and 2023 is 17% hedged in the low-$50/MWh range. Liquidity continues to improve for 2021 since mid-October with an increase in forward prices from $51/MWh in Q3 to the high-$50s/MWh which is more in line with the fundamental view. As Bryan outlined in his discussion of portfolio optimization, the lower hedged position is by design as there are unique circumstances related to 2021 that underlies the current hedged position. While we continue to hedge the portfolio, the expectation is that we will be entering the year below where we historically have been hedged which has ranged from 45% up to as high as 100% baseload hedged.

Slide 70

In 2020, both credit rating agencies, S&P and DBRS, affirmed our investment grade credit ratings of BBB- and BBB low with stable outlook and trend. Our forecast metrics during the upcoming construction cycle remains in line with the rating agency expectations for our current rating. In 2021, with the expiration of the Genesee PPAs, our contracted EBITDA will decrease to approximately 67% which is still in line with S&Ps target for our contracted cashflow. Our average contract life of 10 years is also in line with the long-term average target. We have strong liquidity with $950 million currently available on our $1 billion of committed credit facilities which matures in July of 2024.

Slide 71

In closing, I would highlight that our investment in decarbonization at Genesee and the additional renewables projects strengthens our financial stability. Capital Power has mitigated carbon liability with real reductions in emissions with an accelerated timeline of our strategy. Our balance sheet strength has allowed Capital Power to capitalize on taking this step today when it makes the most sense to do so. While we see material growth capex spend in the coming years, the dividend guidance for 2021 and 2022 and the long-term dividend strategy remains unchanged. Thank you and I will now turn it back to Brian Vaasjo.

Slide 72

Thank you, Sandra. Before I conclude I will review our 2021 targets. As you know we set these targets now for 2021 and will speak to our progress each quarter.

Slide 73

Our 2021 facility availability target is 93% which is the same as our 2020 target. This is a continuation of the strong performance of our generation facilities. 2021 sustaining capital expenditures at $80 to $90 million is $10 million below our 2020 range while the adjusted EBITDA range is $975 million to $1.025 billion which is significantly higher than 2020. Our AFFO target range of $500 to $550 million, normalized for the Milner Line Loss provision, is the same as 2020. Increased power prices essentially offset the

impact of Genesee 1&2 coming off contract, the retirement of Southport and Roxboro and an increase in carbon tax.

Slide 74

As I said earlier, 2021 is a very big construction year for Capital Power and our targets reflect that. Repowering needs to continue to be on time and on budget. Of the seven renewable projects Whitla 2&3 are targeting completion in 2021. The five solar projects need to progress through 2021 on time and on budget for completions in 2022. Lastly, we have a $500 million committed capital target, the same as we have had for the past few years. We will apply the same discipline in making investment decisions for this $500 million as we have over the past decade. To be clear if there are no opportunities out there that fit Capital Power, we are fine with not meeting this target.

Slide 75

So why invest in Capital Power? What makes our future attractive and exciting? First our strategy has been resilient, we test it year after year to ensure that it will create shareholder value and now it encompasses a path to be net carbon neutral before 2050. One element of that strategy is investing in renewable power. Our innovation has not only led to a string of successful wind projects, it now makes us competitive in solar. That more than doubles our renewable opportunities in North America and the fact that we have won competitive contracts in both Canada and the United States in 2020 confirms that in fact we are competitive.

The Genesee repowering is a tremendous project from many perspectives. Its efficiency is the best in Canada which positions it very well competitively in the Alberta market. It eliminates our carbon tax obligation on Genesee 1&2. Its capital cost is extremely low and technically it is positioned very well for further innovation through hydrogen and/or CCUS. The financial contribution of the project to Capital Power is very strong. The Genesee repowering also enables us to be off coal in 2023 without it costing shareholders. It merges Genesee into our natural gas strategy which focuses on the right assets in the right markets and certainly a repowered Genesee is a great asset in a good market. Our drive for operational excellence and innovation will continue to enhance the value of these assets through initiatives like Ops 2030 which promises to add $50 million in EBITDA by 2030. This drive for innovation also initiates investments like the Genesee Carbon Conversion Centre and investigation of hydrogen and storage. Lastly as Kate stated, ESG is integral to our DNA. In summary, a simple strategy of investing in renewable power and selective natural gas assets in North America. Providing reliable and competitively priced energy while on a clear path to be net carbon neutral by 2050. We will now take another 5 minutes before moving to questions and answers.

Question & Answer Session

Moderator

All righty. We're going to go into our Q&A right now. First up, we'd like to welcome Maurice Choy from RBC Capital Markets. Go ahead, Maurice.

Maurice Choy

Thank you and thank you for taking my questions. My first question, I really want to just dive more deeply into economics of G1/G2. Sandra, you made a comment earlier that this project will not cost investors a single penny. I suppose other than the proceeds from the DRIP, what does this project mean in terms of new discrete common equity, if any, and also if you could comment on any asset recycling processes that you think you will begin to fund this project? Thank you.

Sandra Haskins

Yes. Thanks, Maurice. So yes, as I said, it would not cost investors a penny. We do expect that the actual financing when we have it in place, it will be less than the deemed structure, so we'll continue to optimize the financing of G1/G2 repowering as we roll through the construction period, but we do expect that we will leave the DRIP on as we had anticipated that that would be put in place to sort of cover the development we have for the renewables, and for G1/G2, when you look at the amount of capital spend that we have over the next three years, it approximates our target of $500 million per year, so that's growth that we can do without accessing the equity market, but realizing that it is quite front-end loaded, so we'll assess that as time goes on. But at this point in time, we expect to be less than deemed, and we'll

use as much internally generated cash as we can. As far as asset recycling, that is another option to equity that we'll look at. We do have some options there where we could see creating shareholder value by selling down part of an asset or a bundle of assets, or looking to sell one, so we will continue to monitor that as we roll through the next couple of years.

Maurice Choy
Thank you, and my second question is about the $0.70 AFFO per share. Obviously, that $0.70 reflects the additional EBITDA from G1/G2, and you also mentioned that it also reflects reduced margins, I believe brought in for the existing assets. Could you break that down a little bit more for us – in terms of how much dollars per megawatt hour? Is power price expected to impact it, and given that the 0.35 now is best-in-class, do you expect there to be a higher carbon tax for your other existing assets?

Bryan DeNeve
Yes, so in terms of G1/G2, it's expected to have a net incremental AFFO per year of $130 million. That is net of the negative impact we're going to see on our other existing assets, and as you say, Maurice, that'll be driven by downward pressure on power prices following COD of the repowered units, so we've taken that into account in those metrics. The $0.70 per share accretion, that assumes that—as Sandra was saying, that assumes half of the equity is funded by internally-generated cash flow and the other half is raised in the market. Now, certainly, that could go one of either way, so, but I spoke to a range in my presentation of the bookends for AFFO per share.

Maurice Choy
Just for a follow-up to that, the bookends of that, is that range because of the structure of financing, or is that a range of the impact on margins?

Bryan DeNeve
No, that's simply the range of how much of the equity is financed by internally generated cash flow, so if 100% was funded by internally generated cash flow, you would see the accretion being I believe it's $0.93. But if we were to fund 100% through externally generated equity raised in the equity markets, it would be accretive by, I think, about $0.43, so the $0.70 is kind of a midpoint between those two bookends.

Maurice Choy
I missed it. Thank you very much for taking my questions.

Moderator
Great. Thank you, Maurice. Next up, we've got John Mould with TD Newcrest. John, go ahead.

John Mould
Good morning, everybody. Thanks for taking the time. Maybe just starting on the debt financing option side, for Sandra, you've got some projects in Alberta, Whitla 1 and now Strathmore Solar, where long-term contracts could support project financing, and you're out looking for more contracts. Are there any potential benefits to adding some project financing to your debt strategy, or do you really see no reason to shift from the corporate debt strategy you've primarily relied on to date?

Sandra Haskins
Yes, so when we look at project debt, we typically use that where we've got partnerships, because under our credit facility's limited capacity for project debt, and when we're in the acquisition market, we often see that assets come with project debt, so we want to make sure that capacity is there to be able to assume that. We do look at project debt, but not leaning towards doing that on any of the renewable buildouts. We look at that being balance sheet financed.

John Mould
Okay, great, and then more broadly on your midterm renewables pipeline, you bought that Element portfolio a number of years ago. Just wondering what the market looks like right now for earlier-stage opportunities and the potential for you to fill out that pipeline as you look to fuel your longer-term renewable ambitions in the U.S.

Bryan DeNeve
So yes, we continue to see a large number of opportunities from more junior developers on the renewable side. A couple of things that Capital Power brings to the table is we do have some safe harbored equipment, which obviously

facilitates those opportunities and us being competitive, but the other thing is our investment-grade credit rating and strong balance sheet which allows us to take some of those projects to the next stage that a more junior developer would have difficulty with or have difficulty financing. And then, of course, once we get into the competitive process, the advantages you heard about in our presentations from the construction, development, and execution side has positioned us well, so Element was a real nice portfolio for us. It's turned out well. Certainly, we evaluate a number of opportunities on one-offs that more junior developers are bringing to the market, but also we do look at those bigger groups to expand the pipeline, so certainly will continue to be a lot of opportunity there.

John Mould
Okay, great, and then on the Genesee Carbon Conversion Centre, can you just give us a sense of how do potential returns on that investment stack up relative to your other investment opportunities, and is there any sense of what revenues could look like in 2022 or any goal posts that you're able to give us from that initiative?

Bryan DeNeve
At this point, we haven't really laid out any specific numbers or margins around it. What I can say, though, is that the projected returns off the Genesee Carbon Conversion Centre would be – the expectations are very high, so we're looking at levered returns 20% plus on that investment, and those are under very conservative assumptions. So certainly, the products we're looking at, starting with, of course, the addition to cement and the low cost of production using the C2CNT technology has the opportunity to generate very strong returns on the investment we're looking at.

John Mould
Okay. Thanks. I'll get back in the queue. Thank you.

Moderator
Great. Thank you. Next up we have Naji Baydoun from Industrial Alliance Securities. Go ahead, Naji.

Naji Baydoun
Good morning. I just wanted to ask what your thoughts are on the Genesee 3 repowering, I guess. When would it make sense for you—or what would you like to see happen in the Alberta market that will give you more confidence in also pursuing a full repowering for G3?

Bryan DeNeve
Yes, certainly with Genesee 3, there's a number of considerations there, so as you can appreciate, it's a supercritical unit. It's the most efficient older unit on the system that is looking at coal-to-gas conversion, so one of the things we took into consideration is that G1 and G2 were the natural ones to repower to get them down to a lower variable cost and lower in the merit order. With G3, even if we had left in simple cycle, it will be the most efficient simple cycle out of all the older coal units, so still will be well positioned in the merit order. I think, as we move forward, if we continue to see strong pricing in the Alberta market, coupled with, if we particularly see increases in carbon pricing, that'll be something we'll continue to evaluate and look at. But certainly, there's a lot of life left in Genesee 3, so it remains a strong candidate for repowering down the road.

Naji Baydoun
Great. Thank you for that, and I guess more of a question on asset recycling and M&A, and maybe just a bit more details on where you see the best opportunities to recycle assets if we can start with that.

Sandra Haskins
So yes, I think that when you look at our ability to acquire renewable projects and develop them, it exceeds our financial targets to do so, so see that the opportunity to maybe bundle up renewables and sell those and be able to achieve a developers' premium on those, and it's a very liquid market as well, so see that as one option. So really nothing specifically on the table or off the table in terms of asset recycling, but would see that as being one of the more obvious opportunities.

Naji Baydoun
I guess related to the cement, some interesting observation. Obviously, your pace of renewable

build-out has sort of accelerated this year and seems like will continue to do so going forward. In some specific cases, you've been comfortable developing projects at higher multiples from where your share price valuation is. Would you be willing to entertain, let's say, a larger, more strategic acquisition of renewable assets, even if it's not immediately accretive, but if you believe the valuation uplift will outweigh the upfront costs, or is that not something that you're considering at the moment?

Sandra Haskins
No, I wouldn't say that that's something that we're actively pursuing at the moment.

Naji Baydoun
Okay. Thank you.

Moderator
Thank you. Next up we've got Patrick Kenny from National Bank Financial. Go ahead, Patrick.

Patrick Kenny
Yes. Good morning, and thanks for the update today. Just given Genesee will be 30% hydrogen ready in a few years, potentially 95%, how much of the billion dollar budget might be eligible for claiming the 12% capital subsidy under the Alberta Incentive Program. And maybe you can talk about whether or not you're going to be looking to build and own the blue hydrogen infrastructure onsite at Genesee, or would you just look to source hydrogen from the pipeline companies or other third parties?

Bryan DeNeve
So, from the perspective of the hydrogen side, most likely we'd be looking to procure from other parties to deliver that to the plant gate, so we would be more focused on infrastructure on the plant site to utilize it. As far as the 12% and the credit, I think that's something we'll need to take away and give some further thought to. We do know that to move, to retrofit, to be able to burn 95% hydrogen, that would have an incremental cost of about $8 million to $9 million per unit, so it's not a large cost, but one of the things we do need to be mindful of, there is some other infrastructure we would need onsite to take the hydrogen from the plant gate to the units.

Patrick Kenny
Okay. Thanks for that, and then just looking at the capital program on slide 65. Can you just confirm what the decommissioning costs of the Genesee coal mine would be, and I guess both from a total reclamation cost perspective, how much is in the 2023 budget, and perhaps also, on an annual basis beyond 2023 within the sustaining capital numbers?

Sandra Haskins
Yes, so the decommissioning costs aren't included in the capital program, so the numbers that are shown on the slide are development in growth capex. So decommissioning costs for the mine is sort of ongoing. We spend, ongoing, about $5 million a year in terms of reclaiming the mined area, and then there'd be the terminal piece with respect to the actual buildings and what have you that would occur farther out, so that's not included in this slide, but it'll be relatively small cost on an ongoing basis.

Patrick Kenny
Okay, and then also looking at slide 56, the percentage of Alberta merchant cash flows increases to 33% by 2025. That's a little bit higher, I believe, than the longer-term target of being less than 30% merchant, and, I guess, given that you're fully committed on the organic capital front over the next three years, just curious if there's any way to get back to less than 30% merchant through portfolio optimization, or would it really depend on executing M&A alongside issuing equity to achieve a lower merchant component?

Sandra Haskins
Yes, so I think our long-term target is to be about one-third merchant and two-thirds contracted, so see that generally being in line with our long-term sort of target for that, and to manage that, we would look at adding contracted assets, so the hedging really not considered part of the contracted percentage, but see 30% as being onside with our long-term target of merchant exposure.

Patrick Kenny
Okay, great. Thanks. I'll jump back in the queue.

Moderator
All righty. It looks like there's no further questions, so we're going to pass it on back over to Brian Vaasjo for some closing remarks.

Brian Vaasjo
Well, firstly, I do apologize, again, for the technical glitch that took place. I guess that's typical of these times of trying to do things a little bit differently and improve what is otherwise a poor situation for all of us. And again, technical glitches are all part of that. First, we would like to thank you all for joining us for the 13th Investor Day of Capital Power. This is a very exciting time for us, and I certainly hope that what we've shared with you today, you can see the same transformation taking place in our business as we see, and the steps going forward with the moving to being off coal in 2023, and certainly the significant strides we've made with renewables, both on the wind side, but certainly, most recently on the solar side. I think paves a significant path for us moving forward. So, in conclusion, I'd like to say again, thank you very much for joining us today, and we'd like to wish you all continued health and safety, the best of the holiday season, and we really hope that we'll be able to actually see you in person next year. Thanks again.