

# IDAHO POWER CO<sub>2</sub> EMISSIONS REDUCTION REPORT

## Short-Term / Medium-Term / Long-Term Targets

Idaho Power has been a leader in clean energy generation for over 100 years, with a fleet of hydropower plants along the Snake River and its tributaries. We remain a clean energy leader today, with over half of our energy mix coming from carbon dioxide (CO<sub>2</sub>) emissions-free resources, including Idaho Power-owned hydro resources and the energy we buy through long-term contracts with wind, solar, biomass, geothermal and small-scale hydro generators. In addition to our current low-carbon profile, Idaho Power has established short-term, medium-term and long-term targets for further CO<sub>2</sub> reductions.

### Short-Term Targets

Idaho Power began setting short-term targets in 2010 to reduce CO<sub>2</sub> emissions intensity (measured in pounds of CO<sub>2</sub> produced from each megawatt-hour of generation) from company-owned generation resources from the 2005 baseline year, and we have exceeded those targets on a consistent basis. From 2010 to 2020, we reduced the CO<sub>2</sub> emissions intensity from company-owned generation resources by an average of 29% compared to the 2005 baseline year, eclipsing our 15-20% reduction target. Our current short-term emissions intensity goal is to reduce CO<sub>2</sub> emissions intensity from company-owned generation resources by 35% for the period of 2021-2025 compared to the 2005 baseline year.

### Long-Term Target

In March 2019, Idaho Power adopted a goal to achieve 100% Clean Energy by 2045. We were one of the first utilities in the nation to voluntarily adopt a 100% clean energy goal. In setting the clean energy goal, we recognized that achieving the goal will require technological advances in clean generation resources and renewable energy integration, as well as a continued focus on energy efficiency and demand-response programs. While natural gas may be required for the near future as a resource to integrate the large amount of variable solar and wind power on our system, we will be looking for ways to reduce or offset this need with clean energy resources, while keeping our system reliable and affordable for our customers.

### Medium-Term Targets

In addition to its short-term and long-term targets, Idaho Power has established medium-term CO<sub>2</sub> emissions intensity reduction targets through its 2021 Integrated Resource Plan (IRP). The IRP is Idaho Power's definitive resource planning exercise and produces our preferred resource acquisition plan for the next 20 years, which is referred to as the IRP "Preferred Portfolio". The Preferred Portfolio is selected from the numerous resource portfolios analyzed in the IRP process, and provides the best balance for meeting the multiple IRP resource assessment criteria, which include reliability, environmental responsibility, efficiency, risk, and cost. The Preferred Portfolio is shown in the IRP Table 1.1 below, and identifies the resource acquisitions and retirements Idaho Power plans over the 2021-2040 IRP planning period.

The Preferred Portfolio includes the addition of extensive renewable resources over the 2021-2040 planning period: 700 MW of wind resources, 1,405 MW of solar resources, 1,685 MW of storage resources, 500 MW of transmission capacity, 100 MW of demand response resources (in addition to the 300 MW of our updated existing demand response programs), and 440 MW of

energy efficiency resources. The Preferred Portfolio also shows Idaho Power exiting all of its remaining 841 MW interest in coal resources by year-end 2028. Of these coal exits, 357 MW of coal generation would be converted to 357 MW of natural gas generation from 2024-2034. This limited conversion to natural gas generation provides a base of reliable, dispatchable electric service to our customers as we transition to clean energy resources.

**IRP Table 1.1 Preferred Portfolio additions and coal exits (MW)**

Year	Base B2H* (MW)						Coal Exits	EE**Forecast	EE**Bundles
	Gas	Wind	Solar	Storage	Trans.	DR			
2021	0	0	0	0	0	0	0	23	0
2022	0	0	0	0	0	300	0	24	0
2023	0	0	120	115	0	20	-357	24	0
2024	357	700	0	5	0	0	0	25	0
2025	0	0	300	105	0	20	-308	27	0
2026	0	0	215	0	500	0	0	28	0
2027	0	0	250	5	0	0	0	27	0
2028	0	0	120	55	0	0	-175	27	0
2029	0	0	100	255	0	0	0	26	0
2030	0	0	0	55	0	0	0	24	0
2031	0	0	0	55	0	0	0	24	0
2032	0	0	0	55	0	0	0	23	0
2033	0	0	0	100	0	0	0	22	0
2034	-357	0	100	150	0	0	0	21	0
2035	0	0	100	305	0	0	0	20	0
2036	0	0	0	55	0	0	0	16	0
2037	0	0	0	105	0	0	0	14	0
2038	0	0	100	155	0	20	0	12	0
2039	0	0	0	55	0	20	0	11	3
2040	0	0	0	55	0	20	0	10	9
Subtotal	0	700	1,405	1,685	500	400	-841	428	12
<b>Total</b>	<b>4,289</b>								

\* Base B2H refers to the Preferred Portfolio

\*\* EE means energy efficiency, as further discussed in the IRP

The IRP also provides a calculation of annual CO<sub>2</sub> emissions and emissions intensity for the Preferred Portfolio over the 20-year planning period, based on the resource additions and retirements set forth in the Preferred Portfolio table above. The table below shows Idaho Power's projected annual power generation levels and associated CO<sub>2</sub> emissions and emissions intensity for the 2021-2040 IRP planning period, as well as the emissions and emissions intensity of our baseline measuring year of 2005. These projections are based on the assumptions set forth in the IRP for normal water, average temperatures, and other standard planning assumptions.

## MEDIUM-TERM TARGETS

Year	IPC Total Generation and Purchases	IPC CO <sub>2</sub> * Emissions (short tons)	IPC CO <sub>2</sub> Emissions Intensity (lb/MWh)	Percent Reduction from 2005 Emissions Intensity
<b>2005</b>	–	<b>8,067,721 **</b>	<b>1194.01 **</b>	–
2021	17,349,710	3,154,403 ***	363.63 ***	70%
2022	17,610,870	3,474,004	394.53	67%
2023	17,789,590	3,149,783	354.12	70%
2024	19,045,810	2,433,224	255.51	79%
2025	19,520,501	2,311,936	236.87	80%
2026	19,997,157	2,027,555	202.78	83%
2027	20,348,868	2,037,458	200.25	83%
2028	20,663,763	2,126,216	205.79	83%
2029	20,652,728	1,765,895	171.01	86%
2030	20,618,332	1,746,092	169.37	86%
2031	20,605,927	1,812,454	175.92	85%
2032	20,739,706	1,854,539	178.84	85%
2033	20,733,811	1,936,470	186.79	84%
2034	20,920,079	1,920,405	183.59	85%
2035	21,123,264	1,817,962	172.13	86%
2036	21,281,454	1,829,567	171.94	86%
2037	21,449,677	1,837,077	171.29	86%
2038	21,671,771	1,863,878	172.01	86%
2039	21,826,011	1,893,368	173.50	85%
2040	22,040,812	1,887,357	171.26	86%

\* IPC Emissions and IPC Emissions Intensity for the periods presented do not include fugitive methane emissions from the Company’s gas plant operations, as this data is not available. The Company believes these emissions are insignificant because the Company does not operate pipeline gas compressors or expanders and that such emissions do not materially impact the Company’s ability to achieve emissions reductions aligned with the Paris Agreement’s 1.5 degree goal.

\*\* IPC Emissions and IPC Emissions Intensity for 2005 include all power generated from IPC facilities (including wholesale market sales), but do not include wholesale market power purchases or PURPA purchases, due to lack of 2005 emissions data for these purchases.

\*\*\* IPC Emissions and IPC Emissions Intensity for the 2021-2040 forecast period include projected generation from IPC facilities (including wholesale market sales), plus projected wholesale market purchases and PURPA purchases. The CO<sub>2</sub> emissions assigned to wholesale market purchases are based on the source zones for market purchases identified in the 2021 IRP.

As indicated in this Medium-Term Targets carbon reduction table, Idaho Power has already significantly reduced our CO<sub>2</sub> emissions and emissions intensity since the 2005 baseline year.

We have achieved this reduction primarily by decreasing our coal generation levels, including terminating our coal generation from the North Valmy Unit 1 in 2019 and from the Boardman plant in 2020. The table shows continuing projected CO<sub>2</sub> emissions intensity reductions in future years, including an 86% reduction in emissions intensity by 2030, compared to the 2005 baseline year.

As noted above, Idaho Power's CO<sub>2</sub> reduction projections are based on the assumptions set forth in the IRP for normal water, average temperatures, and other standard planning assumptions. In years where Idaho Power has low water levels and high demand levels, use of hydroelectric generation declines and fossil fuel generation increases to meet customer demand, which increases CO<sub>2</sub> emissions. For example, Idaho Power had below normal water and above normal demand in 2020, and CO<sub>2</sub> emissions increased from 3,972,217 metric tons in 2019 to 4,858,113 metric tons in 2020 as a result. We experienced below normal water conditions and above normal demand again in 2021, and we expect that our actual 2021 CO<sub>2</sub> emissions will be significantly higher than our IRP projection of 3,154,403 metric tons (see Medium-Term Targets table above) as a result. However, year to year variations are expected and do not alter the overall IRP projections for the 2021-2040 planning period based on normal water, average temperatures, and other standard planning assumptions.

The Medium-Term Targets carbon reduction table also shows our projected CO<sub>2</sub> emissions continuing to decline significantly from 2022 to 2029, as we plan to further reduce, and ultimately eliminate, our coal CO<sub>2</sub> emissions by (1) converting Bridger Units 1 and 2 to natural gas in 2023, (2) exiting North Valmy Unit 2 in 2025, (3) exiting Bridger Unit 3 or 4 in 2025 and (4) exiting the remaining Bridger Unit 3 or 4 in 2028, all as set forth in our IRP Preferred Portfolio.

Our projected CO<sub>2</sub> emissions and emissions intensity remain low for the remainder of the 2021-2040 IRP planning period, with the Preferred Portfolio showing the continued addition of solar and storage renewable resources and the end of natural gas generation totaling 357 MW at Bridger Units 1 and 2 in 2034. Idaho Power has recently issued two All-Source Requests for Proposals (the "2021 RFP" and "2022 RFP") focused on the acquisition of renewable energy resources (see our website at <https://www.idahopower.com/about-us/doing-business-with-us/request-for-resources/>). The 2021 RFP identifies the following resource types: Renewable; Renewable plus Battery Storage; Low emission Non-Renewable, with renewable retrofit capabilities; Standalone Battery Storage; Pumped Storage Hydro; and Other Resources as applicable. The 2022 RFP includes the following eligible products: Solar PV; Wind; Geothermal; Battery Energy Storage ("BESS"); Solar + BESS; Wind + BESS; Long Duration Storage; Gas-fired Convertible to Hydrogen; and Demand Response.

From 2040 to 2045, Idaho Power will continue to strive toward meeting our 2045 Clean Energy goal. As noted above, we recognize that achieving our 2045 goal will require technological advances in clean generation resources and renewable energy integration, as well as a continued focus on energy efficiency and demand-response programs.

## Paris Agreement Goals

Idaho Power believes that its short-term, medium-term and long-term CO<sub>2</sub> emissions reduction targets described above are aligned with the Paris Agreement goal of cutting CO<sub>2</sub> emissions to net zero by 2050, in order to limit global temperature rise to 1.5 degrees Celsius. Our long-term 2045 Clean Energy goal is more aggressive than the Paris Agreement goal of reducing CO<sub>2</sub> emissions to net zero by 2050. The Idaho Power Clean Energy goal is five years shorter and does

not rely upon a “net zero” carbon emissions standard, which allows a company to continue to emit CO<sub>2</sub> as long as the emissions are offset by the purchase of renewal energy credits or other offsetting mechanisms. Furthermore, our short-term and medium-term targets show significant CO<sub>2</sub> emissions reductions over the 2021-2040 IRP planning period, providing a reasonable and credible path toward meeting the Paris Agreement net zero goal by 2050.

## **Monitoring and Reporting Progress**

Idaho Power will continue to monitor progress toward achieving our short-term, medium-term and long-term CO<sub>2</sub> emissions targets. We track our performance for the short-term targets on an annual basis, by calculating actual CO<sub>2</sub> emissions and generation output from company-owned generating units at the end of each year. The CO<sub>2</sub> emissions intensity results are then included in our annual ESG Report and on our website.

Idaho Power will also monitor progress toward achieving its medium-term CO<sub>2</sub> emissions targets on an annual basis, by comparing actual CO<sub>2</sub> emissions and emissions intensity for each year to the medium-term targets from the IRP. This information will be provided on Idaho Power’s website to provide an annual report of Idaho Power’s progress toward reducing its CO<sub>2</sub> emissions in alignment with the Paris Agreement 2050 “net zero” goal. Actual results will vary from year to year, depending on hydro-generation output, temperatures, customer load levels and other factors.