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Independent Regulatory Review Commission

BEFORE THE
INDEPENDENT REGULATORY REVIEW COMMISSION
Proposed Rulemaking
CO2 Budget Trading Program

Comments of LS Power

LS Power[1] is a development, investment and operating company focused on the North American power and energy infrastructure sector. We have a substantial and growing footprint in Pennsylvania, currently operating 3.8 Gigawatts of natural gas and pumped storage hydro generation in the Commonwealth, along with an expanding electric vehicle charging business and a demand-response and energy efficiency company. LS Power's Pennsylvania fleet represents approximately 13 percent of total peak load in Pennsylvania.

LS Power supports properly constructed carbon pricing programs. We would support the adoption of the Pennsylvania Environmental Quality Board's ("the "Board's" or "EQB's") Proposed CO2 Budget Trading Program (50 Pa. B 6212) if the proposed rule is clarified and amended to address potentially adverse impacts on consumers, businesses and the wholesale power markets.

As the Independent Regulatory Review Commission ("IRRC" or "the Commission") reviews the proposed regulations, we encourage consideration of LS Power's two primary recommendations, which are as follows:

1. Delay implementation of RGGI until January 1, 2023; and
2. Reduce and clarify the contemplated waste coal allowance budget.

We explain our recommendations further below, and we have also attached hereto our January 14, 2021 comments submitted to the Board.

Delay Implementation

The COVID-19 pandemic disrupted the economy and impacted the wholesale power market in 2020 and will continue to do so in 2021 and possible beyond.

The EQB drafted the proposed RGGI rule using data available during the outset of the COVID-19 pandemic. As such, the rule – which impacts a fundamental aspect of the economy – does not fully reflect the economic impact of the pandemic. We believe the Board should base the final Rule and its compliance

[1] LS Power is a development, investment and operating company focused on the North American power and energy infrastructure sector. Since its inception in 1990, in addition to its development of more than 660 miles of high voltage transmission, LS Power has developed, constructed, managed or acquired more than 45,000 MW of power generation, including utility-scale solar, wind, hydro, natural gas-fired and battery energy storage projects. Additionally, LS Power actively invests in businesses focused on renewable energy and fuels, as well as distributed energy resource platforms, such as CPower Energy Management and EVgo. Across its efforts, LS Power has raised in excess of $46 billion in debt and equity financing to support North American infrastructure. For more information, please visit www.LSPower.com

caps on more typical economic performance and emissions data. That data will unlikely be available by January 2022, at which time the proposed rule is scheduled to go into effect.

To that end, LS Power recommends postponing the start date of RGGI by one year, given the significant uncertainty about the long-term economic impacts on business and consumers. The additional time will allow the Board the opportunity to update the modeling and assumptions that form the foundation of the rule's anticipated costs and results. A one-year delay also will provide time for impacted fossil generators and energy consumers to better prepare for the increase costs the RGGI rule will impose on generators, consumers, and the economy at large.

Reduce the Waste Coal Set-aside Baseline Allowance Budget

The baseline for waste coal allowances is exceedingly generous and thus contrary to the primary goal of the rule – to force carbon emissions reductions. The baseline year to set allowances for waste coal units should be 2019, when CO2 emissions from Pennsylvania waste coal plants was 6,013,207 tons. The proposed allowance budget of 9,300,000 exceeds 2019 CO2 emissions by 33%. In other words, the proposed Rule includes a waste coal CO2 emissions budget that is significantly higher than what the waste coal plants actually require to continue to operate. Unless the objective is to maximize the run time of waste coal plants – thus increasing their CO2 emissions – IRRC and the Board should consider reducing the current waste coal set-aside. It is unreasonable, and not in the public's best interest, to provide such favorable treatment of waste coal plants at the expense of newer, more efficient and less emitting natural gas plants.

In addition, the proposed Rule reduces the annual CO2 budget for impacted resources each year – except for waste coal plants, whose annual CO2 budget does not decline over time. This is another example of the unwarranted favorable treatment waste coal plants are provided in the proposed Rule, and as such is completely unreasonable and counter to the goal of reducing CO2 emissions.

An equitable rule should mandate that waste coal units be subject to declining annual CO2 budgets, especially given the generous allowance budget proposed for waste coal plants. Further, Pennsylvania would be the only member of RGGI to provide waste coal set aside allowances, making the proposed rule inconsistent with the other states in the program.

Clarify the Reporting and Compliance Requirements for Non-Waste Coal Fuel Burned in Waste Coal Units

The proposed RGGI rule covers electric generation units with nameplate capacity of 25 MW. It defines "waste coal-fired" units as those using waste coal, "or, if in combination with any other fuel, waste coal comprises 75% or greater of the annual heat input on a Btu basis." 50 Pa. B. 6212, 6236. The Rule is not clear on the regulation of CO2 emissions from non-waste coal that is burned in waste coal units.

In contrast, the Rule's application to biomass reporting and compliance is clear. In section 145.377 of the proposed Rule, the biomass reporting requirements apply to each shipment of biomass, reporting of quantities and composition of material. 50 Pa. B. 6212, 6253. The Rule should include a comparable reporting requirement for waste coal.

The purpose for the budget allowances (de facto program exemption) for waste coal stated in the Rule's preamble refers to the environmental benefit of cleaning waste coal piles. That purpose is not served by allowing these units to burn non-waste coal and other fuel sources without subjecting the resulting CO2 emissions to the budget caps and reporting requirements applicable to other covered sources.

LS Power appreciates the opportunity to provide these comments.

Attachment included

BEFORE THE
ENVIRONMENTAL QUALITY BOARD
Proposed Rulemaking
CO2 Budget Trading Program
Comments of LS Power

LS Power[1] appreciates the opportunity to offer comments on the Pennsylvania Environmental Quality Board's ("the "Board's" or "EQB's") Proposed CO2 Budget Trading Program that would establish the Commonwealth's participation in the Regional Greenhouse Gas Initiative ("RGGI"). 50 Pa. B 6212.

LS Power is a development, investment and operating company focused on the North American power and energy infrastructure sector. LS Power has a substantial and growing footprint in Pennsylvania, currently operating 3.8 GW of natural gas and pumped storage hydro generation in the Commonwealth, along with an expanding electric vehicle charging business and a demand-response and energy efficiency company[2]. LS Power's Pennsylvania fleet represents approximately 13 percent of total peak load in Pennsylvania[3].

A leading investor in renewable energy technologies that lower carbon emissions, LS Power has a growing clean energy portfolio. LS Power owns and operates renewable energy projects, battery storage, pumped storage hydro facilities and transmission projects throughout the U.S. EVgo, an LS

[1] Since its inception in 1990, LS Power has consistently been at the leading edge of the industry's evolution, often introducing or commercializing new technologies and developing new markets. To date, LS Power has developed, constructed, managed or acquired more than 42,000 MW of power generation, including utility scale solar, wind, hydro, natural gas-fired and battery storage projects, and over 630 miles of transmission, for which it has raised in excess of $45 billion in debt and equity financing to support North American infrastructure. Additionally, LS Power actively invests in businesses and platforms focused on distributed energy resources and energy efficiency. For more information, please visit www.LSPower.com

[2] LS Power's current Pennsylvania assets: Ironwood combined cycle, Lebanon, PA; Springdale combined cycle and peaker, Springdale, PA; Gans peaker, Gans, PA; Chambersburg peaker, Chambersburg, PA; Armstrong peaker, Shelocta, PA; Hummel combined cycle, Shamokin Dam, PA; Seneca Pumped Storage, Warren, PA.

[3] Percentage of peak load based on PJM 2018 Pennsylvania State Infrastructure Report, May 2019.

Power company, operates the largest public fast-charging network for electric vehicles in the country, including seventeen locations in Pennsylvania. LS Power's demand response and energy efficiency company, CPower, helps business and government customers reduce energy use and lower carbon emissions.

Market-Based Approaches to Reduce Carbon Emissions

LS Power supports market-based approaches to lower carbon dioxide emissions from the energy, transportation and building sectors. An electric sector CO2 cap-and-trade program, such as the Regional Greenhouse Gas Initiative ("RGGI"), is an example of a market-based approach that helps states achieve their carbon reduction goals while preserving the economic benefits of competitive wholesale electricity markets. LS Power supports the adoption of a carbon price such as RGGI in Pennsylvania and other states.

RGGI's success, however, depends on its design. As the Board establishes its CO2 budget trading program, we encourage the Board to consider the following three features to ensure RGGI successfully reduces greenhouse gas emissions and advances clean energy development in Pennsylvania: (1) preserve a market-based approach by eliminating "handouts" to individual companies; (2) provide for a smooth transition into RGGI by delaying implementation; and (3) analyze RGGI-related carbon leakage issues. We explain in further detail below how each of these suggestions will enable Pennsylvania to achieve its carbon reduction goals with a true market-based approach that will stimulate further investment in low carbon energy supply.

1. **Delay Implementation of RGGI to at least mid-2023**

In light of the COVID-19 pandemic and the uncertainty surrounding its impact on the economy, we believe it would be appropriate to target 2023 as the start date for Pennsylvania's participation in RGGI for the following reasons:

First, the impact of COVID-19 on the Commonwealth's energy sector, economy and carbon emissions are not yet fully known, nor is its duration. The rulemaking process should incorporate additional time to analyze the effects of the crisis and to integrate the new information into its extensive modeling of RGGI's impacts, including any impacts on the allowance budget, among other factors.

Second, Pennsylvania should allow its energy sector, businesses, and consumers sufficient time to recover from the economic and disruptive impacts of COVID-19, which could be felt for an extended period of time, before implementing a significant new regulation that will increase costs to consumers.

Third, a significant amount of default service supply is already under contract for a portion of 2022 at prices that do not take into account RGGI costs. In fact, later this month, several utilities will initiate procurement for additional default service for the period ending June 1, 2023. The default service contracts do not address RGGI and the change it will have in the wholesale electricity market, leaving suppliers exposed to the increased costs of supply from the market. Through no fault of their own, these default service suppliers will be economically harmed if Pennsylvania joins RGGI in January 2022. At the very least, Pennsylvania should not join RGGI until the term of these contracts has ended.

Fourth, the RGGI allowance price has increased significantly (greater than 50%) since the program was first proposed. This will have additional economic impact on generators and consumers and delaying implementation until sometime in 2023 would provide businesses and consumers greater time to adjust to the impacts of the new rule.

Additional Studies Needed

Entering RGGI in 2023, or even 2024, also would provide time for additional studies to better align RGGI budget caps with actual power plants emissions. LS Power believes that, in order for RGGI to make meaningful changes in the generation supply mix and reduce CO2 emissions, the initial annual budget caps need to be tightened. The proposed rules 78-million-ton cap for 2022, based on a 2018 base year minus about 3 million, is higher than what the CO2 emissions are expected to be in 2020. According to EPA data, CO2 emissions through Q3 2020 were 57.9 million tons. If we assume Q4 2020 will come in at 2019 Q4 levels (19.2 tons), total 2020 CO2 emissions would come in at approximately 77 million tons, which is nearly a million tons below the cap. However, we know that COVID and mild winter weather have reduced electricity demand and thus lowered generation output, so the actual 2020 annual number will almost certainly be even lower. Moreover, two new, efficient low-carbon natural gas fueled power plants in Pennsylvania are expected to commence operation in 2022, and will likely further displace coal-fired generation and reduce emissions. In short, all of these factors could very well result in 2022 CO2 emissions coming in well below the proposed cap, which would result in RGGI adding additional costs to generators and ratepayers without actually reducing emissions. If waste coal generators are subsidized as outlined in the proposed rule that, in combination with a non-binding cap, could actually result in an increase in emissions from RGGI implementation.

In short, we believe it makes sense to delay RGGI implementation for one year for the following reasons: (1) to provide time for the DEP to incorporate the economic and power demand impacts of COVID to into Pennsylvania's RGGI modeling, (2) to study the increased cost of RGGI allowances to generators and consumers, (3) to allow to expire default service contracts that are entered into prior to adoption of the final RGGI rule and the agreement with RGGI Inc. is completed, and (4), to allow the economy to recover. The extra time will enable additional modeling to occur based on the actual, measurable impacts of the unprecedented pandemic, and enable an initial allowance cap to be set at a level commensurate with RGGI's stated goal of reducing carbon emissions.

2. **Preserve RGGI's True Market-Based Approach: No Handouts to Select Companies or Generators.**

First, LS Power cautions that no handouts should be provided to select generators or companies, whether through the allocation of RGGI allowances, the proceeds from the sale of RGGI allowances, compliance exemptions, or special offsets, as this will undermine the competitive market and carbon-reducing benefits of the RGGI program and harm Pennsylvania businesses and consumers. The RGGI program places a price on carbon to allow for a re-dispatch of energy generation that will lower the runtime and emissions from facilities with high CO2 emissions and increase runtime of facilities with lower CO2 emissions, resulting in a net reduction in CO2 emissions. Generators burning fossil fuels are expected to recover some or all of their RGGI costs from the energy market as projected in the RGGI modeling presented by the Pennsylvania Department of Environmental Protection ("DEP") at the April 23 joint AQTAC and CAC meeting. Non-fossil generators, such as nuclear, solar and wind, are expected to benefit from RGGI by capturing the increase in power prices the implementation RGGI will produce, without incurring a corresponding cost. The RGGI program, therefore, already acts as a

subsidy to non-fossil generators, such that additional incentives are duplicative and unnecessary to encourage non-fossil generation.

As evidence of this, Energy Harbor on March 13, 2020 announced that it would rescind deactivation notices for its Beaver Valley nuclear plant, citing Pennsylvania's move to join RGGI[4]. Using the allowances or proceeds from the RGGI program to further subsidize these resources would only divert money from programs that could otherwise advance Pennsylvania's clean energy infrastructure or offset the cost of RGGI to consumers, without a corresponding increase in non-fossil generation.

Rather than subsidizing existing resources, LS Power recommends the Commonwealth consider directing RGGI proceeds toward renewable energy and energy efficiency programs in order to maximize carbon-reductions and further clean energy development. The Commonwealth also should consider using the funds to incentivize clean energy development in communities underrepresented in the green energy economy or to offset any increases in customer bills resulting from the implementation of RGGI.

Eliminate Proposed Allowance Set Aside for Waste Coal in RGGI Program

LS Power understands and acknowledges the environmental legacy that waste coal power plants seek to remedy. However, we believe there are more efficient ways to address RGGI's impacts on waste coal plants than by providing more than nine million free allowances a year. The proposed RGGI rule's set aside represents 12 percent of the proposed initial CO2 allowance budget of 78 million tons, and would represent *16 percent* of the annual budget in 2030 of 58 million tons, for a subset of waste

[4] **Energy Harbor Corp Rescinds Deactivation Notice for Nuclear Generating Plant in Pennsylvania**
https://energyharbor.com/en

coal generators that produced less than 1% of Pennsylvania's electricity supply. In dollar terms, the set aside in the first year could be worth approximately $85 million[5]; money that could be otherwise directed to more efficient uses, such as offsetting the RGGI cost impact on consumers, investing in Pennsylvania's clean energy infrastructure or even directly funding remediation of coal-contaminated lands.

The proposed rule would set-aside 9.3 million RGGI allowances for waste coal, significantly more than the number of tons of CO2 they produce. In 2019 waste coal plants in Pennsylvania emitted approximately 6 million tons of CO2 and through the third quarter of 2020, they emitted 4.6 million tons. At current RGGI prices, waste coal plant owners are being given a windfall of approximately $55 million per year and growing based on historical operations.

Moreover, the financial incentives favoring waste coal plants will become more valuable over time. The rest of the RGGI program will have annual allowance caps that, as proposed, would decline by 3% year over year. Waste coal plants, however, have no annual reduction in their allowance allocation, making the set-aside progressively more valuable to these operators in relative terms. This handout will only grow larger as the RGGI market tightens and prices for RGGI allowances rise.

Although RGGI is designed to decrease emissions by reducing the number of allowances available each year, the proposed rule will have the opposite effect on waste coal plants. The proposed rule designates these set-asides as "allowances," but they are in all practical respects incentives for these facilities to continue to operate with support from ratepayers. Perversely, this will cause an increase in CO2 and other emissions from waste coal facilities, and a reduction in much cleaner, more efficient

[5] RGGI prices have increased significantly since the recent elections. As of January 12, 2021, the ICE mark for the RGGI price for December 2022 was $9.11/ton.

and lower CO2 emitting energy production facilities. The windfall created by the combination of the projected increase in wholesale electricity prices in Pennsylvania from RGGI and the allowance set-aside, would likely make it economic for waste coal plants to operate and emit more than they currently do. Such an outcome thwarts RGGI and any clean air policy goals. The Board should therefore amend the proposed rule to eliminate the waste coal allowance set-asides.

Under the proposed rule, waste coal plants, which already enjoy tax and other economic assistance, would receive three benefits: first, from the increase in wholesale electricity prices that RGGI implementation will produce; second, from the overly generous allowance set aside; and third, from the fact that waste coal allowance caps would not decrease over time. Market distortion and perverse incentives to increase CO2 emissions that the unwarranted subsides create underlie our objection to special treatment to any generators. No other fossil generators have been subsidized like this in any state that has implemented RGGI. These subsidies will impact the overall market that is subject to RGGI's Model Rule[6]. Pennsylvania already has mitigated the impact of RGGI on its waste coal through its Alternative Energy Portfolio Standard[7] and does not need to create a windfall for these facilities in the form of RGGI allowances.

3. **<u>The Department Should Conduct a Study to Analyze RGGI Related Carbon Leakage Issues and Address Such Issues in Rulemaking Process</u>**

Modeling results presented at the April 23 joint meeting of the AQTAC and CAC show that fossil fueled power generation and CO2 emissions in neighboring states that are not members of RGGI would

[6] The Model Rule forms the basis for each state's RGGI rule. More information is available here: https://www.rggi.org/program-overview-and-design/design-archive/mou-model-rule

[7] The AEPS is expected to undergo a review starting in 2021, so there will be opportunity to address waste coal issues

increase when Pennsylvania joined RGGI. This leakage issue undermines the overall effectiveness of the RGGI program. Pennsylvania should endeavor to reduce carbon emissions while ensuring its RGGI program does not benefit CO2-emitting power plants in other states such as Ohio and West Virginia that will not bear the financial obligations of RGGI compliance. To that end, the Department should study how to avoid significant leakage in order to ensure that joining RGGI does not result in regional increases in CO2 and other pollutants resulting from the increased operation of fossil fuel generation from other states. While DEP has indicated it intends to initiate a leakage working group, we believe the work of this group should be completed and factored into the proposed rule, which is another reason to delay implementation for one year.

LS Power appreciates the opportunity to provide comments on the Proposed RGGI Regulation. We would welcome the opportunity to discuss further and provide any additional information that might assist the Board as it develops final rules.

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