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**LS Power Comments on ELCC CIRs for Variable Resources**

**August 23, 2022**

# LS Power Group Overview

LS Power is at the leading edge of the industry's transition to low-carbon energy by commercializing new technologies and developing new markets

- LS Power is a **development, investment and operating company** focused on North American power and energy infrastructure
- Founded in 1990, LS Power has over 300 employees across offices in New York, New Jersey, Missouri, Texas and California
- In total, LS Power has developed, constructed, managed and acquired more than **45,000 MW** of competitive (conventional & renewable) power generation and over **660 miles of high voltage transmission** infrastructure, raising over **\$48 billion** in debt and equity financing to invest in North American infrastructure
- Highlights include **Gateway, the world's largest battery** when energized in Aug 2020, utility-scale solar projects in AZ and CA, **2.6 GW operating portfolio of renewable generation and energy storage**, and flexible, deployable generation resources critical to grid reliability
- LS Power's approach to the energy transition is deliberately **focused on investments that will likely yield long-term reductions in greenhouse gas (GHG) emissions at the system level**

## 2021 Avoided GHG Emissions

(assets under LS Power control)

**80,670,100**

metric tons CO<sub>2</sub>e avoided

EQUALS

**17,550,629**

passenger vehicles taken off the road for one year

OR

**14,658,563**

homes' electricity use for a year

OR

**186,837,560**

barrels of oil not consumed

OR

**27,448,980**

tons of waste recycled instead of landfilled

OR

**98,871,825**

acres of forest sequestering carbon for a year

Please see [LS Power Sustainability](#) for additional details including GHG emission avoidance calculation methodology.

# LS Power Energy Transition Platforms

## National Leaders in Distributed Energy, Electric Vehicle Charging, Energy Storage and Renewable Generation/Fuels



■ **CPower Energy Management is the leading demand-side energy management solutions provider in the U.S.**, that helps nearly 2,000 commercial, industrial and government organizations save on energy costs, earn revenue through energy curtailment, enhance their sustainability efforts, and support the decarbonization and reliability of the electric grid.



■ **Endurant Energy is a leading provider of on-site energy and microgrid solutions in North America** that develops, builds, and owns a variety of technologies including combined heat and power, ground source heat pumps, batteries, fuel cells, and solar. Its blue chip customers span a wide range of sectors, including education, commercial, industrial, real estate, health care, hospitality and public utilities.



■ **EVgo is the nation's largest and most reliable public fast charging network for electric vehicles**, powered 100% by renewable energy, with more than 850+ locations and 400,000+ retail and fleet customers across more than 30 states. EVgo has the best operating record in the industry – more than 98% uptime – and consistently earns the highest consumer scores for U.S. public charging networks on PlugShare.



■ **REV Renewables is an industry leader in the development, acquisition and operation of renewables and energy storage.** REV's 2.6 GW operating portfolio includes 25 solar projects, 1 wind projects, and several battery projects including Gateway, the world's largest battery when energized in Aug 2020. REV represents one of the nation's largest non-utility portfolios of renewables and energy storage.



■ **Primary Renewable Fuels partners with the Landfill Group, a leader in the Landfill Gas to Energy Industry.** With over 30 years of experience, the Landfill Group was created to answer a need expressed by the landfill gas market – the ability to build a project where all vendors come together and seamlessly connect all the parts by providing complete solutions from development, operations, construction, equipment manufacturing, and ownership of landfill gas projects to municipal and private landfill owners across the U.S.



■ **BluSail Renewable Fuels represents a JV with BioStar Renewables and ARM Energy to develop, build, own and operate waste to energy projects.** BluSail uses anaerobic digestion (AD) to break down waste, isolating by-products such as ammonia and methane, to be converted into Renewable Natural Gas or Renewable Electricity. Through its AD Waste to Energy solutions, BluSail reduces Greenhouse Gas Emissions, provides Renewable Energy, and diverts waste from landfills to support farming and other government, commercial and industrial users with their waste management needs.



■ **Rise Light & Power is a regional manager and developer of energy assets** which provides more than 20% of New York City's generating capacity and is making significant investments to enable the state to reach its clean energy goals. From modernizing facilities to investing in large-scale renewable energy projects, Rise Light & Power is working to light the future.

514,814

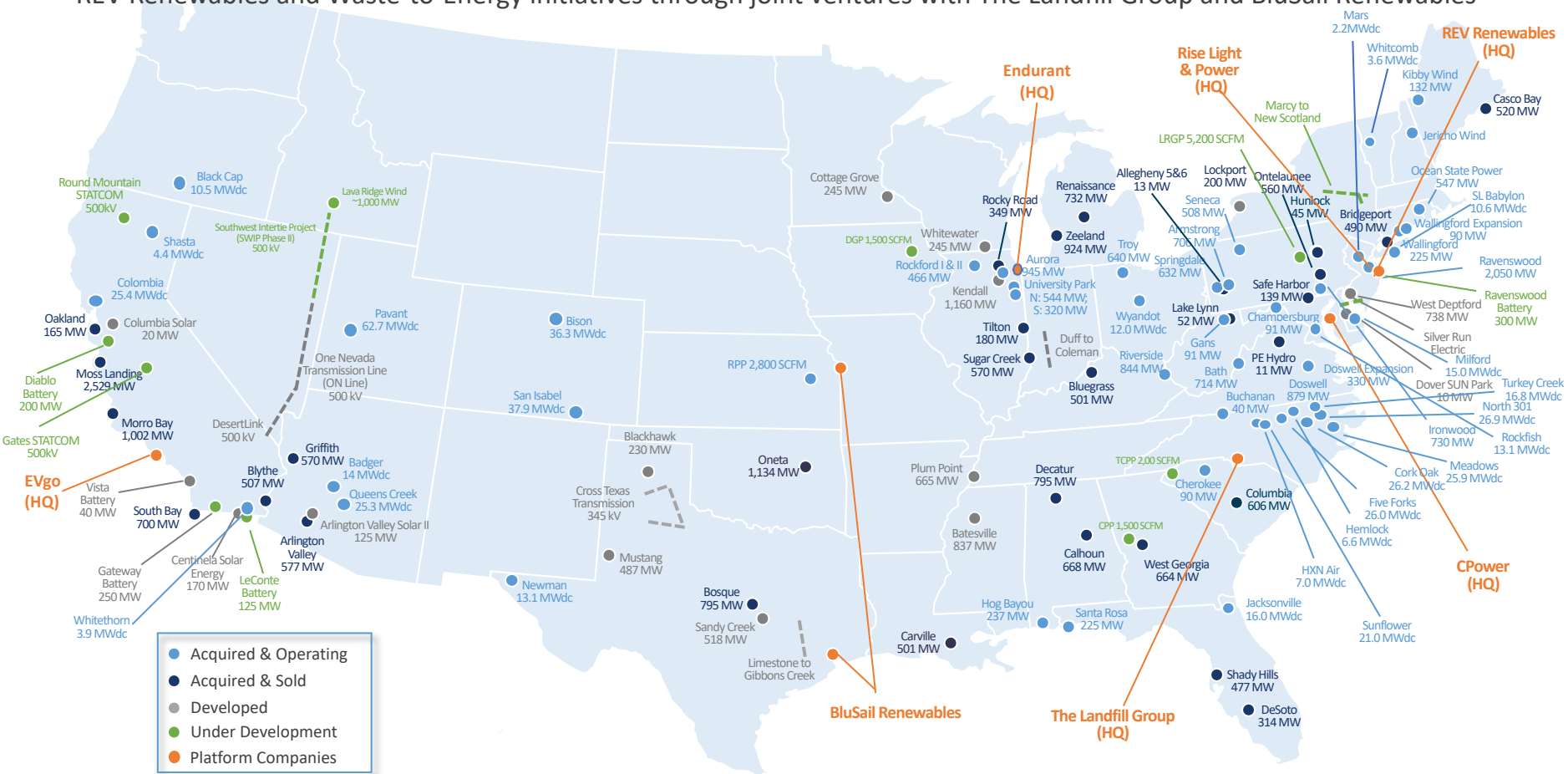
metric tons of CO<sub>2</sub>e collectively avoided  
across LS Power's Energy Transition Platforms in 2021

Please see [LS Power Sustainability](#) for additional details including GHG emission avoidance calculation methodology.

# LS Power Project Portfolio

Extensive development/operating experience across multiple markets and technologies

- With over **\$48 billion** in equity and debt raised, LS Power has developed and acquired **over 100 Power Generation projects** (renewable and conventional), 7 Transmission projects, and 7 Battery Energy Storage projects
- LS Power's **Energy Transition Platforms** include CPower Energy Management, Endurant Energy, EVgo, Rise Light & Power, REV Renewables and Waste-to-Energy initiatives through joint ventures with The Landfill Group and BluSail Renewables



## ISSUE IS VERY SIMPLE

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- PJM and LS Power are in agreement that the accreditation for certain renewable resources is currently inconsistent with the quantity of CIRs granted in the executed Interconnection Service Agreements (ISAs)
- This over-accreditation forces load to buy excess MWs that provide no additional reliability to the system while under-paying those resource that are in fact reliable and capable of delivering all the MWs for which they were accredited
- LS Power strongly believes this over-accreditation is inconsistent with the current Tariff and Reliability Assurance Agreement provisions for deliverability and accreditation
- PJM believes that the accreditation is correct since these resources are “entitled” to existing headroom on the transmission system and therefore deliverable
- Stakeholders nor FERC have opined on the “entitlement” PJM is assuming

## LS POWER “FIX” IS EQUALLY AS SIMPLE

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- LS Power’s proposal to fix this issue is for PJM to properly accredit these renewable, select, resources to reflect the deliverability and therefore the Accredited UCAP of these resources with assigned CIRs equaling 13% of MFO
- This fix only requires PJM to respect the current tariff and RAA provisions
- This fix does NOT require stakeholder approval; a submittal to FERC; nor FERC approval
- This fix does NOT require amending any executed ISA
- That’s it! PJM can and should make the accreditation adjustments immediately!
  
- Based on new information provided by PJM, stakeholders will determine how to enable additional CIRs to be procured for future deliverability tests
- IT’S ALL QUITE SIMPLE!

## LS POWER “FIX” IS EQUALLY SIMPLE - SUMMARY

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- It can and should be fixed now!
- Existing Tariff and RAA provisions require PJM to fix it now!
- No stakeholder approval is required!
- No Tariff revisions are required!
- No FERC approval is required!
- No ISA amendments are required!
- PJM just needs to do the RIGHT thing, as they always have done, and fix it!!

# **ON THE OTHER HAND, PJM'S FIX IS COMPLEX/COSTLY TO LOAD/COSTLY TO RESOURCES IN THE INTERCONNECTION QUEUES**

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- First, NO participant in any PJM markets is “entitled” to any portion of the headroom in the transmission system as PJM is stating as the reason why the existing accreditation is accurate
- PJM solidify this view several years ago when the stakeholders voted to approve and FERC subsequently approved assigning transmission system winter headroom to wind resources to increase their winter accreditation (to accommodate Seasonal Resources in the Capacity Market
  - PJM did not just “assign” the headroom as they are proposing to do how because they could not
- There is no “ENTITLEMENT” of any kind in any of PJM’s governing documents
- PJM’s position is a specious argument at best



## **ON THE OTHER HAND, PJM'S FIX IS COMPLEX/COSTLY TO LOAD/DISCRIMINATORY TO OTHER INTERCONNECTION CUSTOMERS**

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- Second, PJM is proposing to increase the CIRs for these select resources (to make the Accredited UCAP “deliverable”) by assigning the existing transmission system headroom (plus an additional \$5 million in network upgrades to be paid by load) to make the existing accreditation compliant with the Tariff and RAA
- The existing headroom is currently available to ALL resources in the PJM interconnection queues and therefore will no longer be available to those resources which potentially would increase their network upgrade costs
  - It could be argued that the existing headroom is “owned” by a combination of load and every resource that has previously paid network upgrade costs as part of their interconnection to the PJM grid – NOT only these select resources
- To prevent the waterfall effect of discriminately assigning the existing headroom to the selected resources and harming resources in the existing Queues, PJM is proposing that all network upgrades required to make the resources in the existing queue “whole” will be paid for by load
- The cost of this is estimated to be \$2 billion at the very least and most likely will be higher

## **PJM'S PROPOSAL IS THE WRONG APPROACH AND STAKEHOLDERS SHOULD NOT SUPPORT IT**

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- For all of these reasons, PJM's proposal is misguided, discriminatory, unnecessary, and a convoluted reading of the PJM governing documents
- Load interests should be concerned that they are picking-up the tab for PJM's proposal when load has already paid a portion of the headroom PJM is giving away