Roundtable 19-1 Draft Portfolio Summary

Optimized Portfolios

These portfolios rely on an optimization algorithm in ROSE-E to establish resource additions through 2025 based on a specified objective function and constraints. The specified objective function and constraints are described for each portfolio below. Resource additions made after 2025 for each portfolio vary depending on the future in a manner that minimizes the NPVRR in that future, subject to the constraints discussed at Roundtable #19-1.

Min Avg LT Cost: Minimize average long-term NPVRR (through 2050) across futures

Min Avg LT Cost, All Clean: Minimize average long-term NPVRR across futures, no GHG-emitting resources

Min Ref LT Cost: Minimize Reference Case long-term NPVRR

Min Ref LT Cost, All Clean: Minimize Reference Case long-term NPVRR, no GHG-emitting resources

Min Avg ST Cost: Minimize average short-term NPVRR (through 2025) across futures

Min Avg ST Cost, All Clean: Minimize average short -term NPVRR across futures, no GHG-emitting resources

Min Ref ST Cost: Minimize Reference Case short -term NPVRR

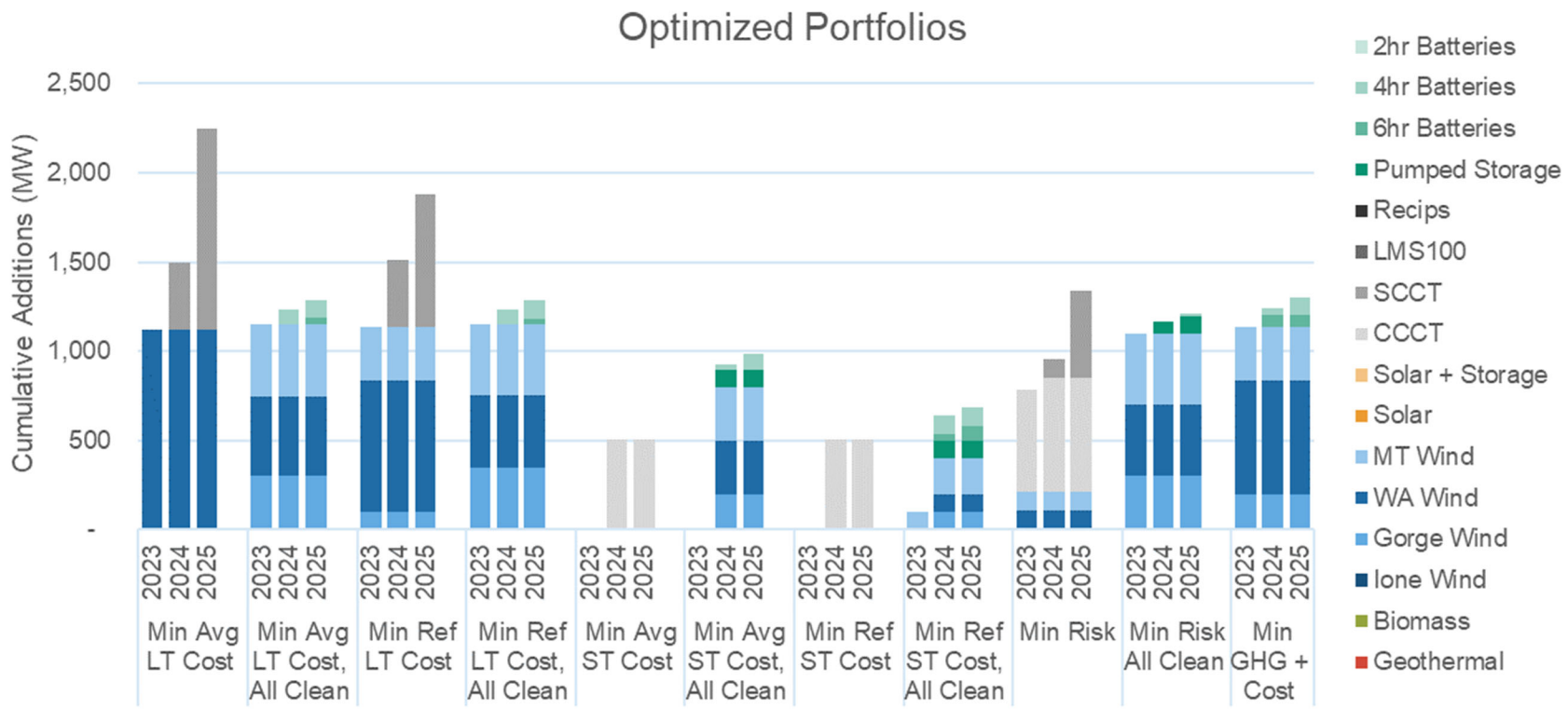
Min Ref ST Cost, All Clean: Minimize Reference Case short -term NPVRR, no GHG-emitting resources

Min Risk: Minimize Semi-Deviation of long-term NPVRR across futures, subject to cost constraint

Min Risk, All Clean: Minimize Semi-Deviation of long-term NPVRR across futures, subject to cost constraint, no GHG-emitting resources

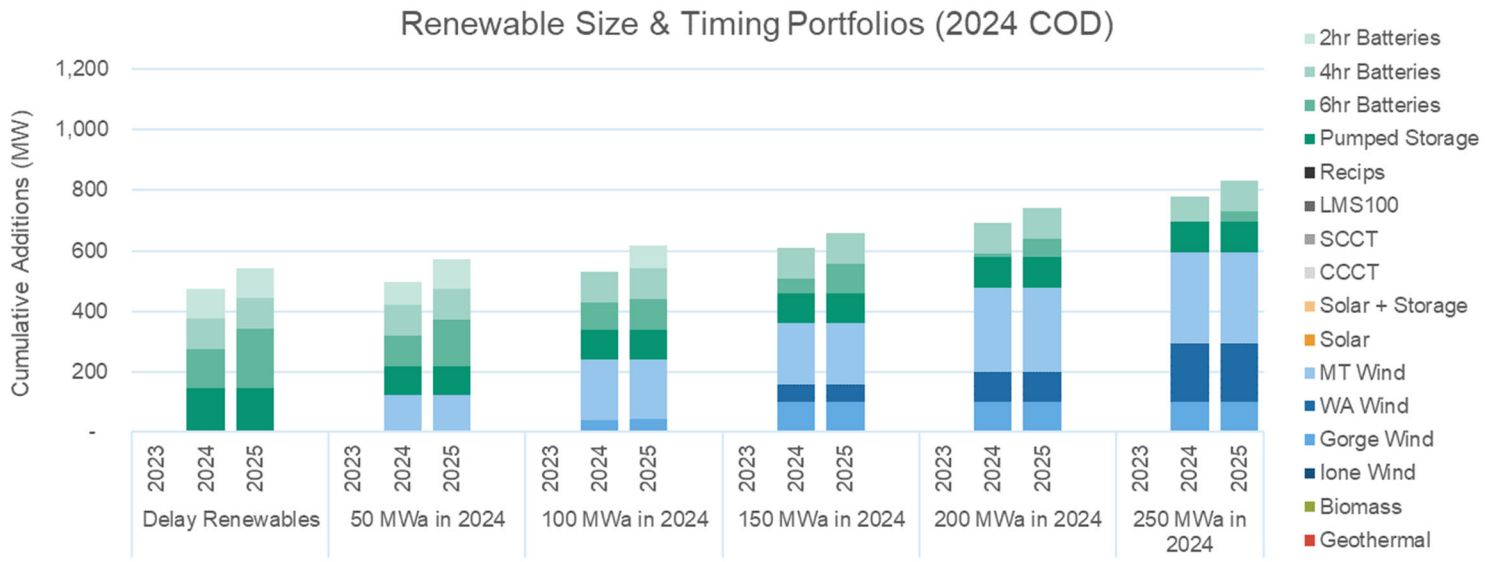
Min GHG + Cost: Minimize Average long-term NPVRR + cumulative GHGs, no GHG-emitting resources

Optimized Portfolios



Renewable Size and Timing Portfolios

These portfolios test portfolio performance as a function of the sizing (in MWa) and commercial online date (COD) of a renewable action in the 2023-2025 time frame. Resources are assumed to be added by December 31st of the year prior to the specified COD in order to qualify for tax credits. Each portfolio is designed by constraining the total MWa of renewable resources added in the specified year within ROSE-E, but allowing the optimization algorithm to select the composition of each renewable action, allowing it to be any of the RPS-eligible technologies or a combination of them. In 2023-2025, capacity additions are constrained to be from non-GHG resources. Resource additions made after 2025 for each portfolio vary depending on the future in a manner that minimizes the NPVRR in that future, subject to the constraints discussed at Roundtable #19-1.


Renewable Size & Timing Portfolios (2024 COD)
Cumulative Additions (MW)
1,200
1,000
800
600
400
200
-
2023
2024
2025
Delay Renewables
50 MWa in 2024
100 MWa in 2024
150 MWa in 2024
200 MWa in 2024
250 MWa in 2024
2hr Batteries
4hr Batteries
6hr Batteries
Pumped Storage
Recips
LMS100
SCCT
CCCT
Solar + Storage
Solar
MT Wind
WA Wind
Gorge Wind
Ione Wind
Biomass
Geothermal


Renewable Size & Timing Portfolios (2025 COD)
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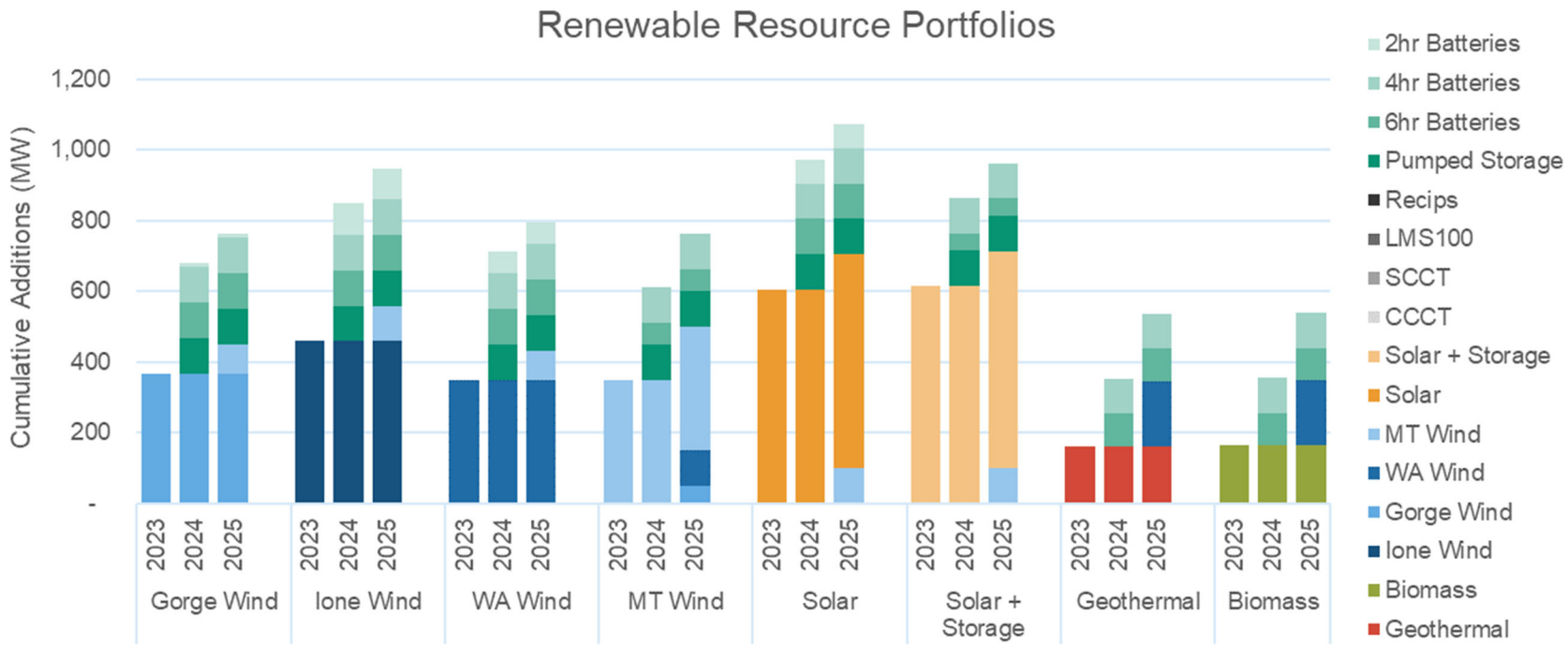
Pumped Storage
Recips
LMS100
SCCT
CCCT
Solar + Storage
Solar
MT Wind
WA Wind
Gorge Wind
Ione Wind
Biomass
Geothermal

Renewable Resource Portfolios

These portfolios test the relative performance across the various RPS-eligible technologies and sites. Each portfolio tests a 150 MWa renewable addition in 2023 of the specified resource type. Renewable additions in 2025 of any RPS-eligible technology are also allowed in the optimization, but not required. Capacity additions are constrained to be from non-GHG resources. Resource additions made after 2025 for each portfolio vary depending on the future in a manner that minimizes the NPVRR in that future, subject to the constraints discussed at Roundtable #19-1.



Dispatchable Capacity Portfolios

These portfolios test the relative performance across the various dispatchable resource portfolios, including thermal resources and energy storage. Each of these portfolios incorporates a 150 MWa addition of Washington Wind in 2023 for comparability and constrains capacity actions through 2025 to only allow the dispatchable capacity resource under investigation (in addition to a constrained amount of "capacity fill" resource, as described at Roundtable 19-1). Resource additions made after 2025 for each portfolio vary depending on the future in a manner that minimizes the NPVRR in that future, subject to the constraints discussed at Roundtable #19-1.