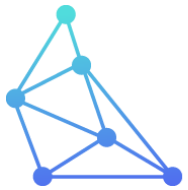
Brandon Shores Retirement Analysis

Condensed Project Summary

March 22, 2024



TELOS ENERGY

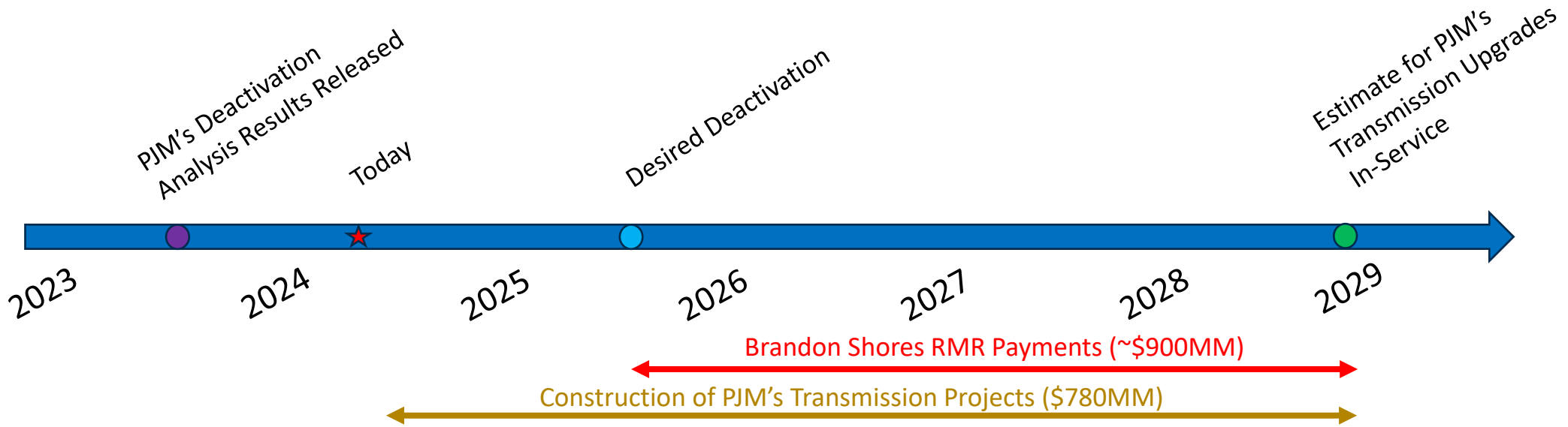
GridLAB

Objective of Our Analysis

RMR Payment Estimate
RMR for Brandon Shores is not finalized, but is estimated to be ~$250MM/year (based on similar RMRs from the Independent Market Monitor for PJM)

Identify an alternative portfolio of grid investments that:

- Maintains reliability per PJM's criteria
- Enables Brandon Shores to retire closer to its target date (June 2025), thereby reducing reliability must-run (RMR) payments → Net benefit to Maryland rate-payers



What Did We Analyze?

Transmission & Economic Analysis Details are on record in MD HB 1112 Hearing

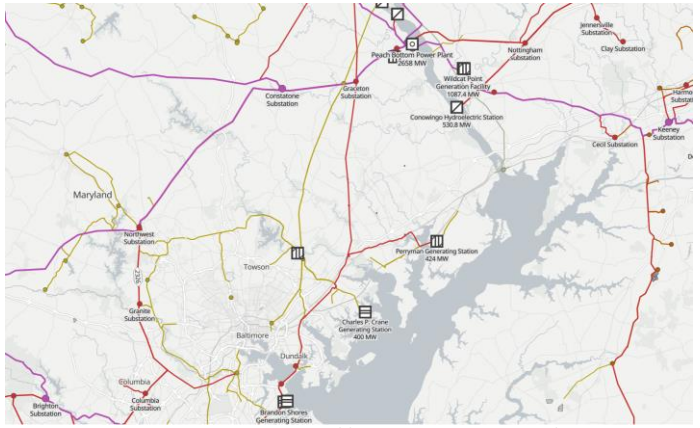
Transmission Analysis

- Started with grid models provided by PJM; used the same software tools
- Mirrored PJM's Deactivation Analysis; benchmarked against PJM's published results
- Extended the analysis to identify new options

Economic Analysis

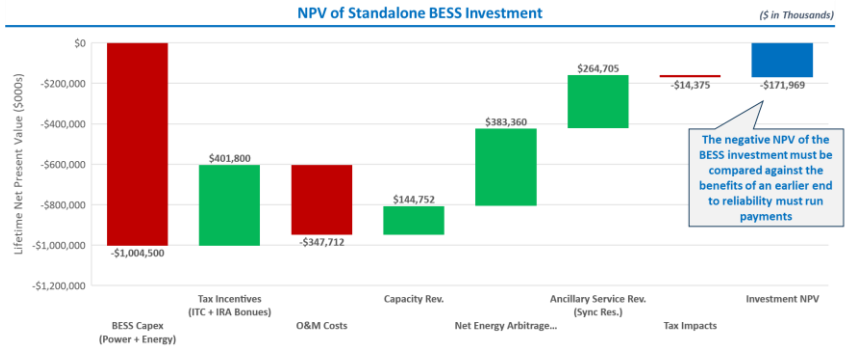
- Estimate the costs and revenues for the battery storage system
- Based on assumptions from NREL's Advanced Technology Baseline and/or PJM's documents
- Considered equipment costs, O&M, ITC subsidy, and an estimate of revenues generated over 20 year

Regional Transmission Grid



Source: https://openinframap.org/

Battery Economic Waterfall



Our Alternative Portfolio

Transmission Reinforcements	Prioritize shorter-lead time transmission projects + Addition of several smaller transmission upgrades (reconductoring)
Battery Storage	800MW, 4-hour system at Brandon Shores Interconnection 20-year operational life
Dispatchable Power	Retain the nearby Wagner fossil power plant Expected to run rarely; only for extreme weather events

Our Findings

- Resolves transmission reliability issues
- Economic net benefit if RMR can be reduced by one year or more
- Savings grow substantially if major grid upgrades don't come online when expected

Default Option

RMR of ~$250MM/yr

Alternative Portfolio

$170MM net cost of battery
+ $ 30MM of add'l transmission
= $200MM cost of portfolio