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CO2 Accounting Process Calculations for BP-SD-05, Carbon Emissions Reductions

NPPD Board of Directors Meeting
April 2024

Jason Vanek – Environmental Operations &
Coordination Supervisor



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Strategic Directive: Carbon Emissions Reductions

Risks

- NPPD recognizes the importance of balancing affordability, reliability, resiliency, and sustainability when addressing CO₂ business risks.
- The CO₂ business risks are elevated as EPA is scheduled to issue it's Greenhouse Gas rules in May.

Net Zero Goal will be achieved by 2050 through:

- The use of proven and reliable generation will be employed until alternative, reliable sources of generation are developed, and
- The use of certified offsets, energy efficiency projects, lower or zero carbon emission generation resources, beneficial electrification or other economical and practical technologies will be evaluated.

NPPD will meet the goal at costs equal to, or lower than, then current resources, and may reconsider the goal in light of adverse cost or reliability impacts.

Calculation Assumptions

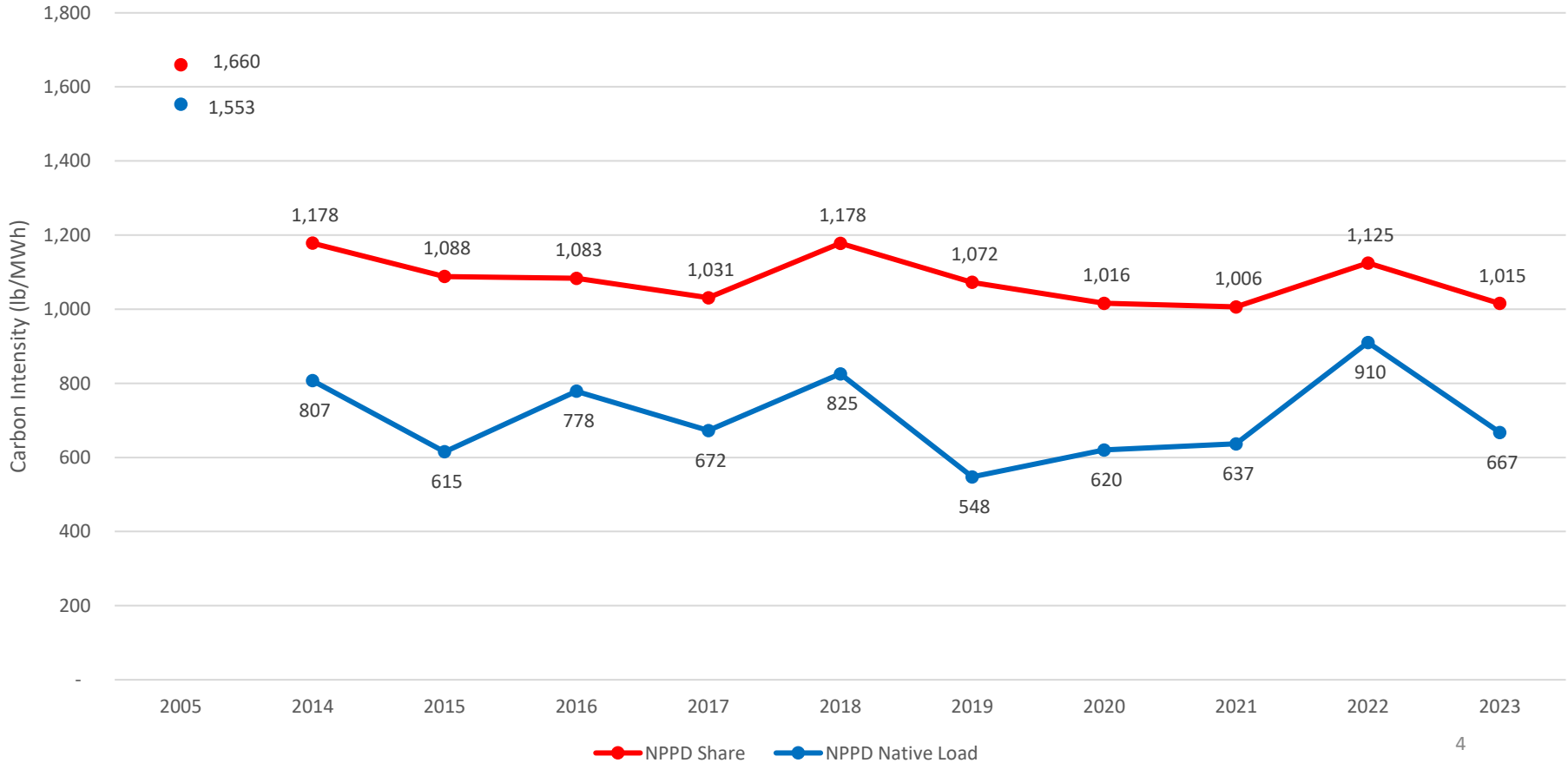
		NPPD's Share ¹	Native Load ²	Notes
Part Sale (e.g., LES)		exclude gen & emissions	exclude gen & emissions	
Generation under NPPD control	GGS	include	exclude pro-rated share of gen & emissions	Tie to the excess market sales generation total
	Sheldon			
	NC2			
	BPS	include	include	
	Wind/Hydro	include	include	
Mkt Purchases		include	include	
QLGs	Retail	include gen	include gen	Same setup as BD
	Wholesale	exclude	exclude	Include if purchase RECs
RECs		include gen	include gen	BD, future Monolith
CO2 equivalent	Gen	exclude	exclude	e.g., N2O, CH4, SF6
	Other (fleet, bldg, etc.)	exclude	exclude	Unless directed by Board
Energy Efficiency		exclude	exclude	
Offsets		include	include	No offsets at this time
Net meter		exclude	exclude	
WAPA		include	include	Assume 100% renewable ³

¹NPPD's Share is primarily generation from owned and purchased resources, excluding participants share and wholesale QLG

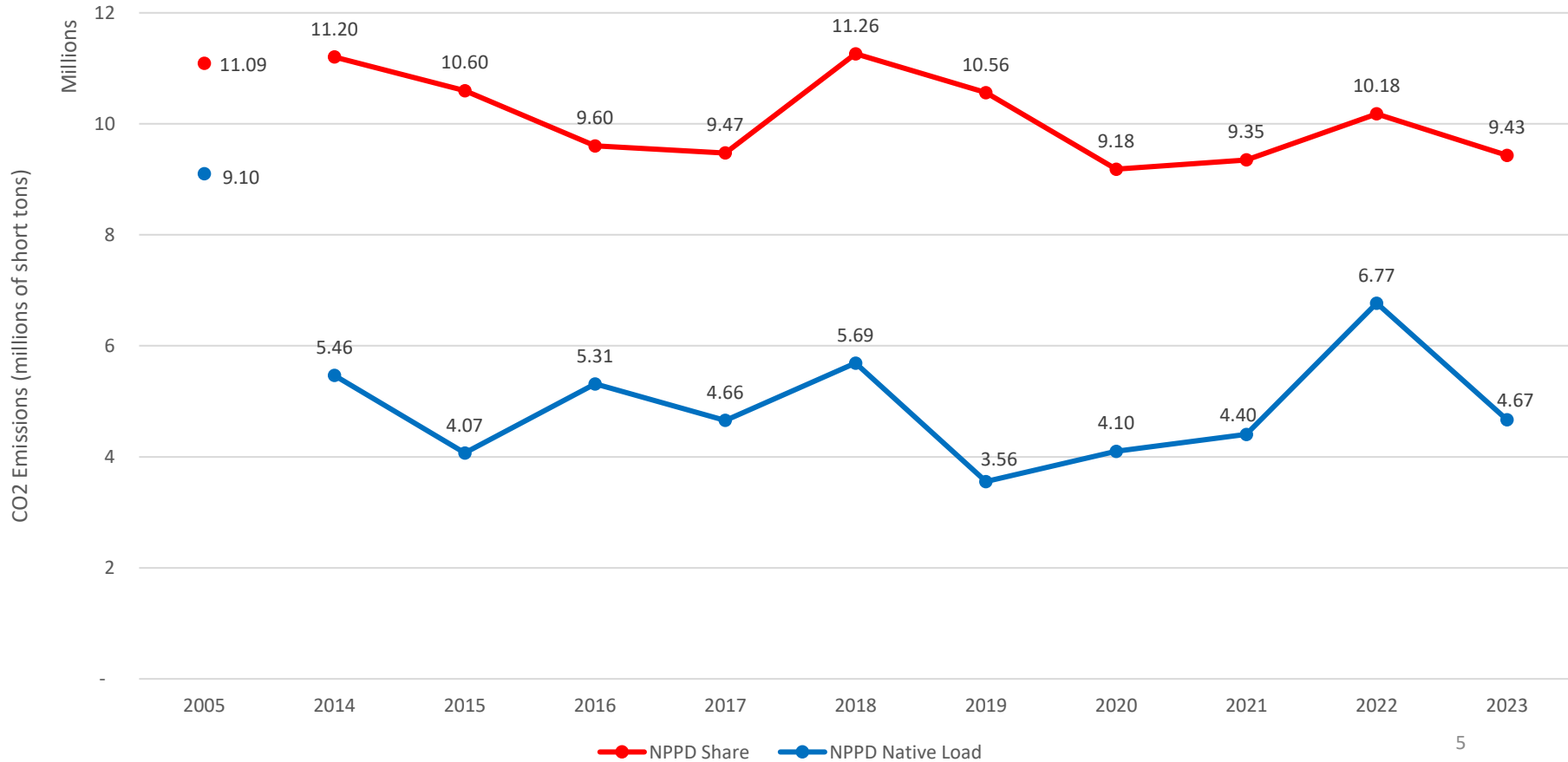
²Native Load is NPPD's share minus generation from "excess" SPP market sales

³WAPA in process of developing REC program which could affect amount of renewable energy.

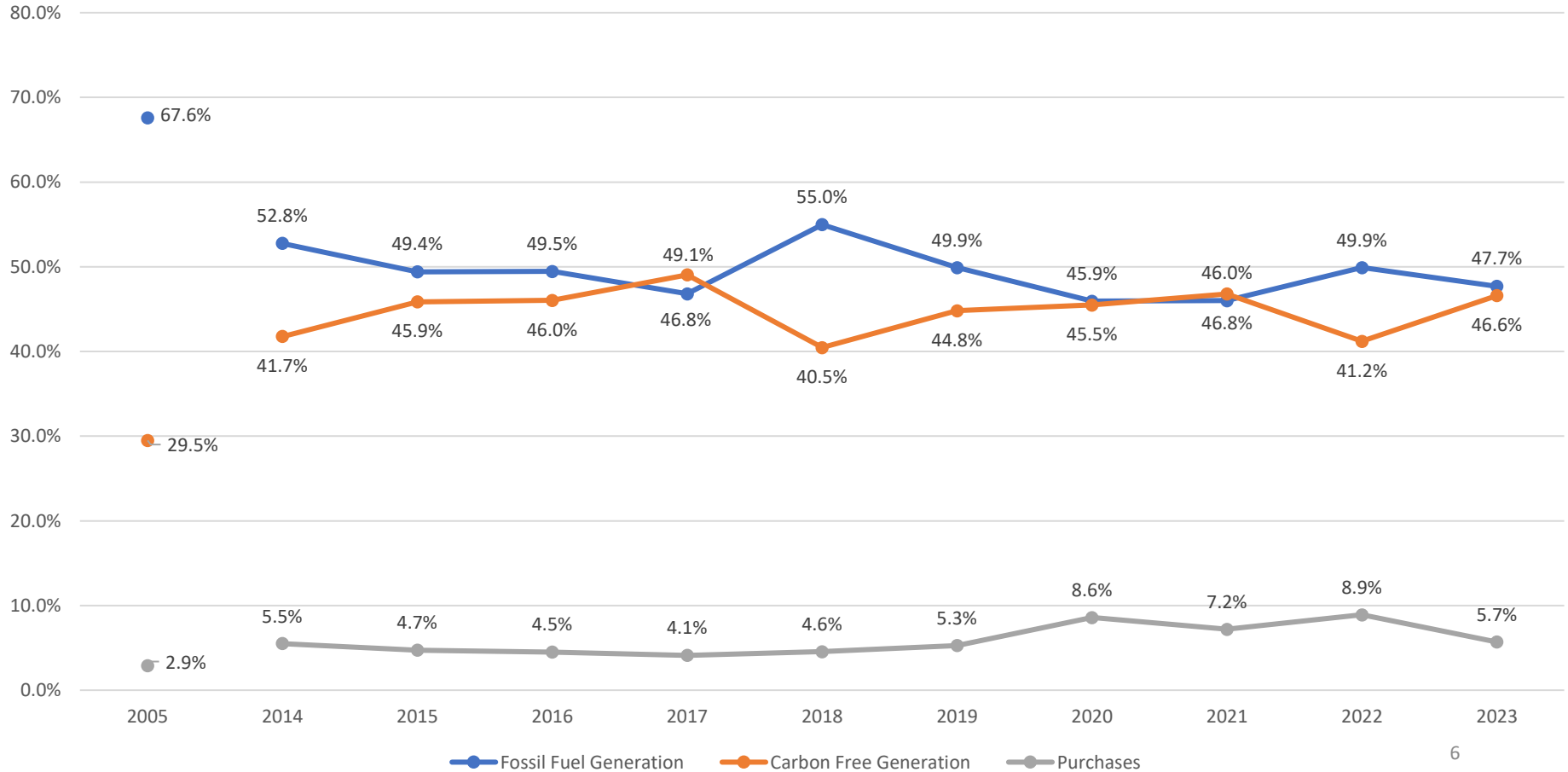
NPPD Carbon Intensity



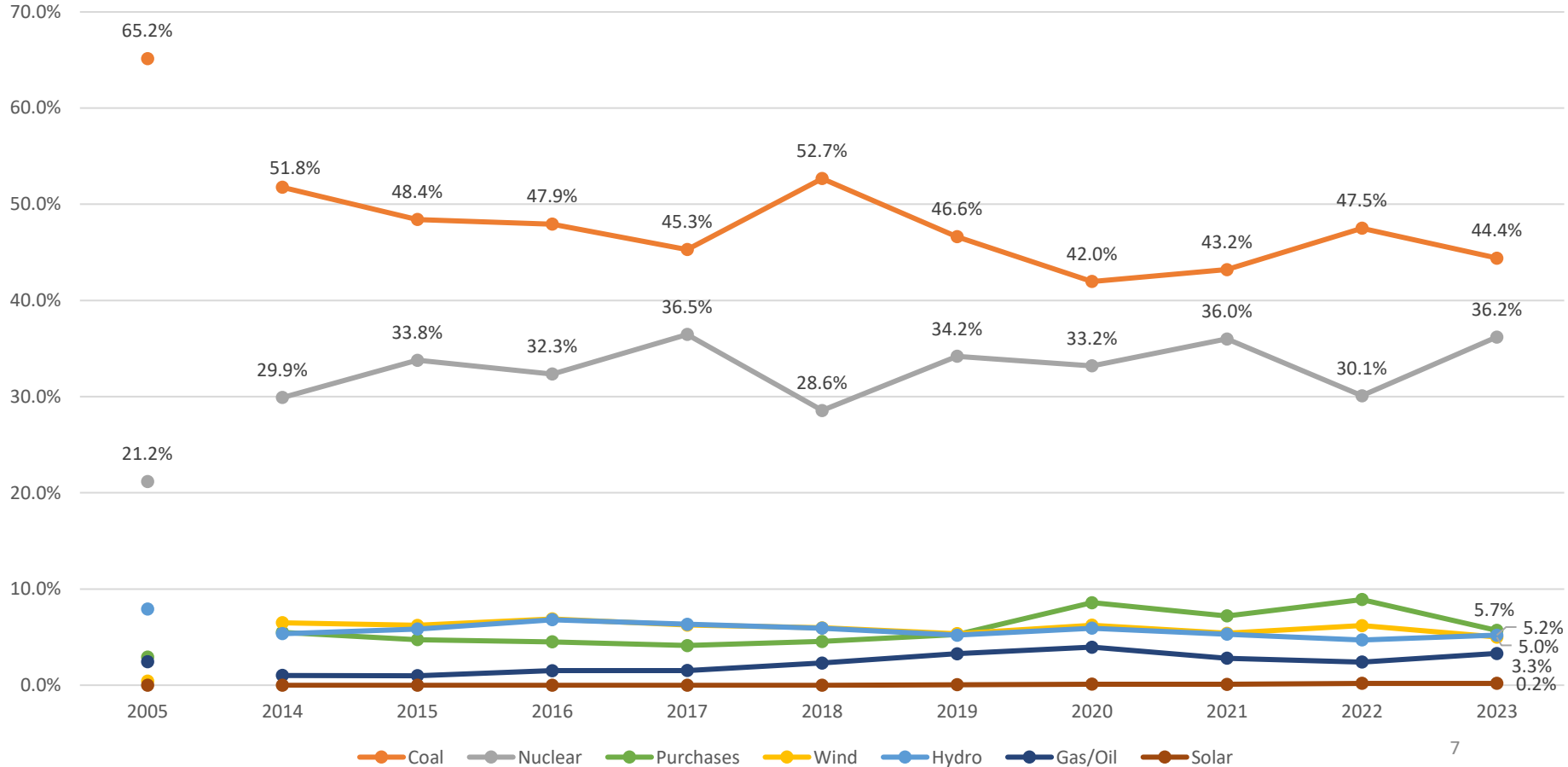
NPPD CO2 Emissions



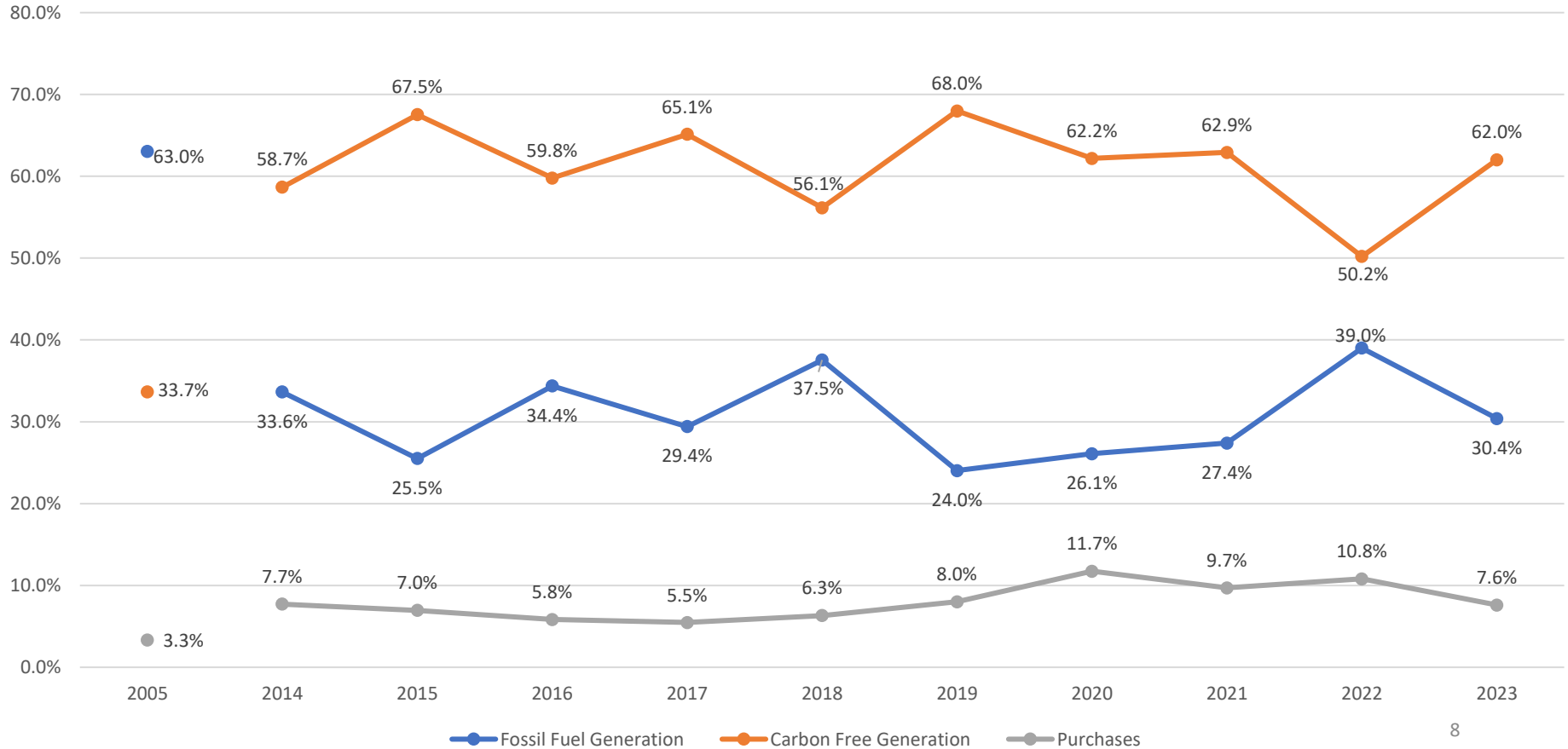
NPPD Share Generation Mix



NPPD Share Generation Mix



Native Load Generation Mix



Results

	2005	2021	2022	2023	% Reduction from 2005
Carbon Intensity (lb/MWh)					
NPPD Share	1,660	1,006	1,125	1,015	39%
NPPD Native Load	1,553	637	910	667	57%
Carbon Emissions (short tons)					
NPPD Share	11,091,341	9,348,421	10,179,085	9,431,511	15%
NPPD Native Load	9,098,104	4,404,478	6,769,258	4,669,531	49%



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Questions

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