



California Energy Commission

Demand Scenarios Workshop

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Acronyms and Initialisms

BTM – Behind-the-meter

CAPEX – Capital Expenditure

DER – Distributed Energy Resource

GW – Gigawatt

IEPR – Integrated Energy Policy Report

IOU – Investor-Owned Utility

ITC – Investment Tax Credit

MW – Megawatt

NBT – Net Billing Tariff

NEM – Net Energy Metering

PA – Planning Area

POU – Publicly Owned Utility

PV – Photovoltaics



BTM DG Modelling Framework

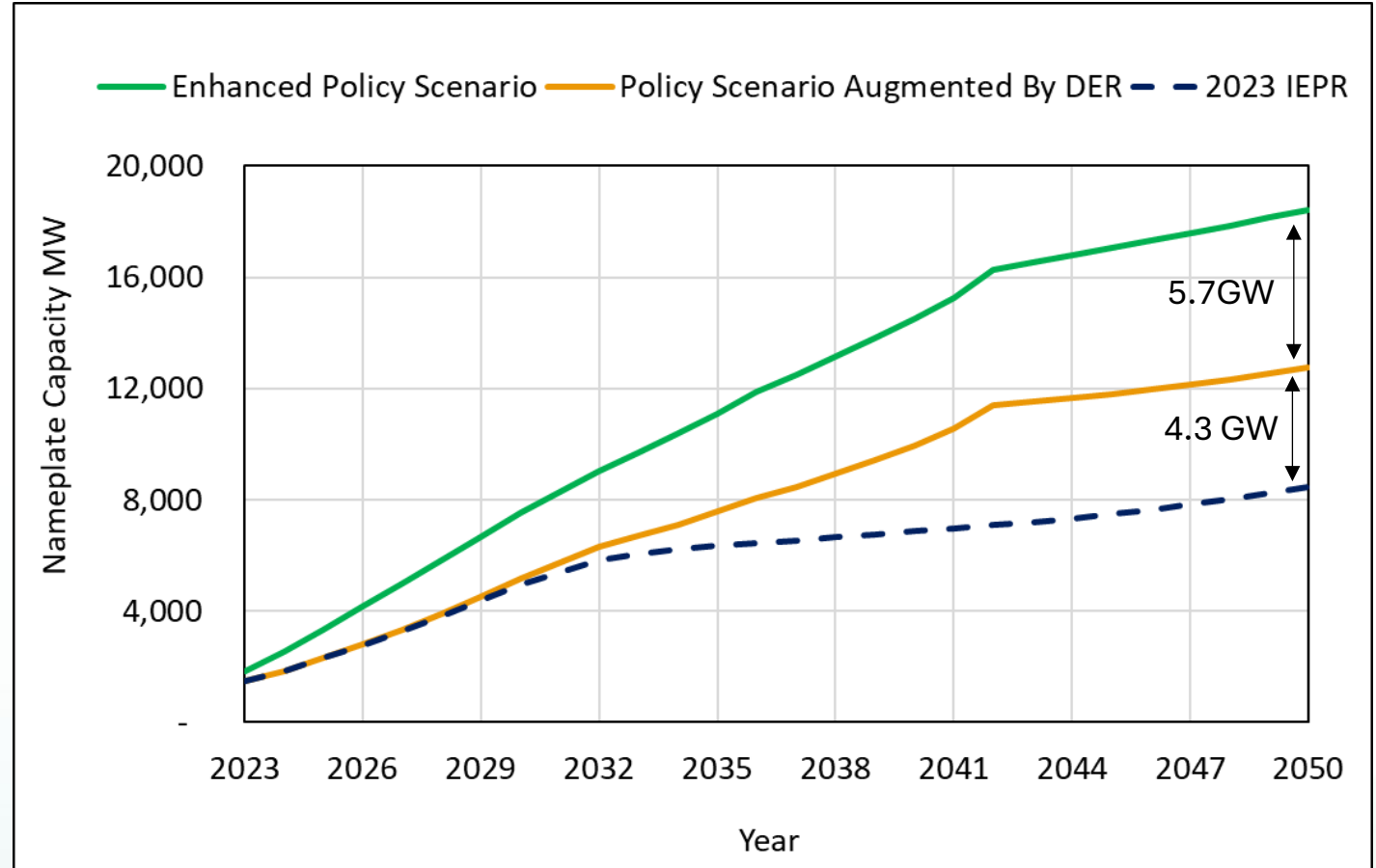
Scenario Assumptions	CEC Reference Scenario	CEC Policy Scenario	CEC Policy Scenario Augmented By DER	CEC Enhanced Policy Scenario
Investment Tax Credit	2023 IEPR forecast	2023 IEPR forecast	2023 IEPR Forecast ITC expires 2034	Extended to 2050
Technology CAPEX			2023 IEPR Forecast	50% reduction in forecast storage CAPEX
NEM Contractual Turnover			Fraction of existing standalone PV adopters add storage when their NEM contract expires	



Statewide Results: BTM Storage Capacity

- Compared to 2023 IEPR, NEM contractual turnover in both demand scenarios increased capacity by:
 - 4.3 GW in 2050
- A 50% reduction to storage CAPEX and ITC extension in the Enhanced Policy scenario results in additional:
 - 5.7 GW in 2050

Year	2023 IEPR	Policy Scenario Augmented By DER	Enhanced Policy
2030	4,950	5,180	7,550
2040	6,860	9,930	14,510
2050	8,450	12,770	18,430



Source: CEC Staff



BTM Storage Forecast Insights

Compared to 2023 IEPR

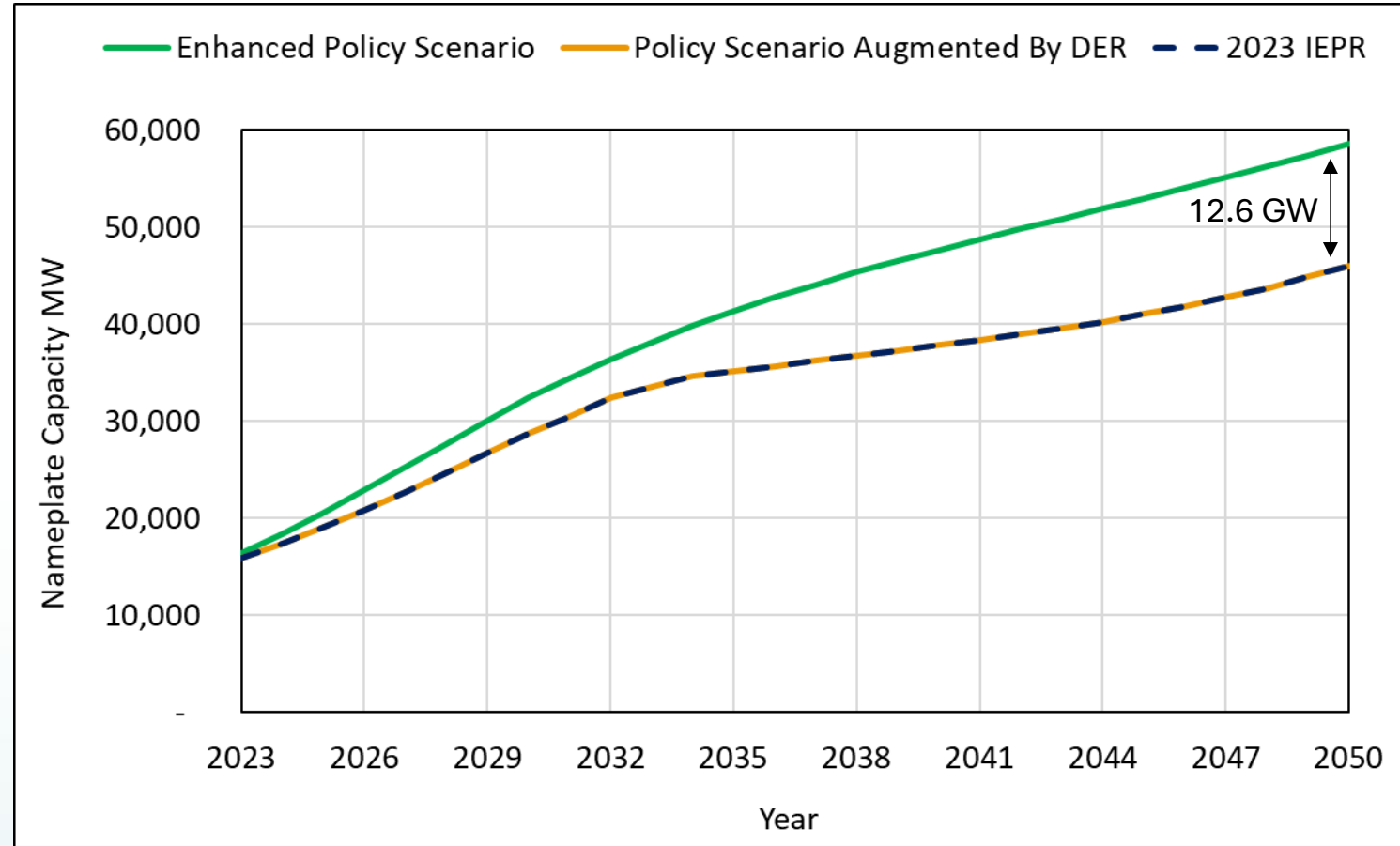
- NEM contractual turnover in Policy Scenario Augmented by DER and Enhanced Policy Scenario increases BTM storage capacity in 2050 by
 - 54% or 4.1 GW across IOU PAs
 - 23% or 0.2 GW across POU PAs
- Cost reductions in the Enhanced Policy Scenario increases BTM storage capacity in 2050 by an additional
 - 42% or 4.9 GW across IOU PAs
 - 83% or 0.7 GW across POU PAs



Statewide Results: BTM PV Capacity

- **No changes** to Policy Scenario Augmented by DER BTM PV forecast
- Increased BTM PV capacity in Enhanced Policy Scenario driven by:
 - ITC extension to 2050
 - Reduced CAPEX for paired systems
- Table highlights differences in nameplate capacity (MW) forecasts:

Year	2023 IEPR	Enhanced Policy
2030	28,720	32,440
2040	37,810	47,620
2050	45,950	58,540



Source: CEC Staff



BTM PV Forecast Insights

Compared to 2023 IEPR

- Cost considerations in the Enhanced Policy Scenario increases BTM storage capacity in 2050 by an additional
 - **26% or 10.5 GW** across IOU PAs
 - **33% or 2.1 GW** across POU PAs



Thank You!

