

**DOCKETED**

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<b>Filer:</b>	Bryan Hsieh
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# California Energy Commission

Demand Scenarios Workshop

Alex Lonsdale, Distributed Generation Forecast Supervisor

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# Acronyms and Initialisms

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**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

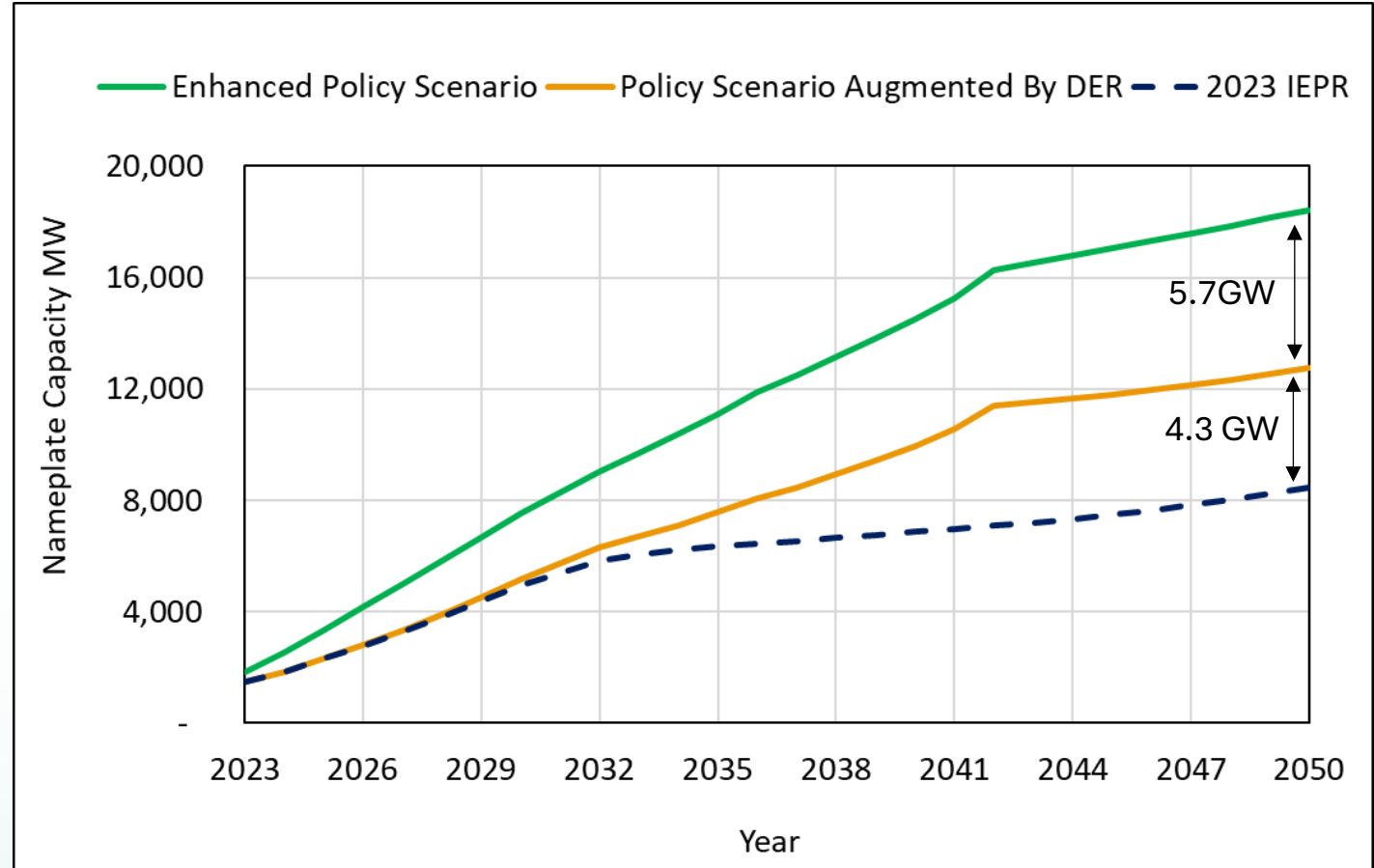
Scenario Assumptions	CEC Reference Scenario	CEC Policy Scenario	CEC Policy Scenario Augmented By DER	CEC Enhanced Policy Scenario
Investment Tax Credit	2023 IEPR forecast	2023 IEPR forecast	2023 IEPR Forecast ITC expires 2034	Extended to 2050
Technology CAPEX			2023 IEPR Forecast	50% reduction in forecast 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

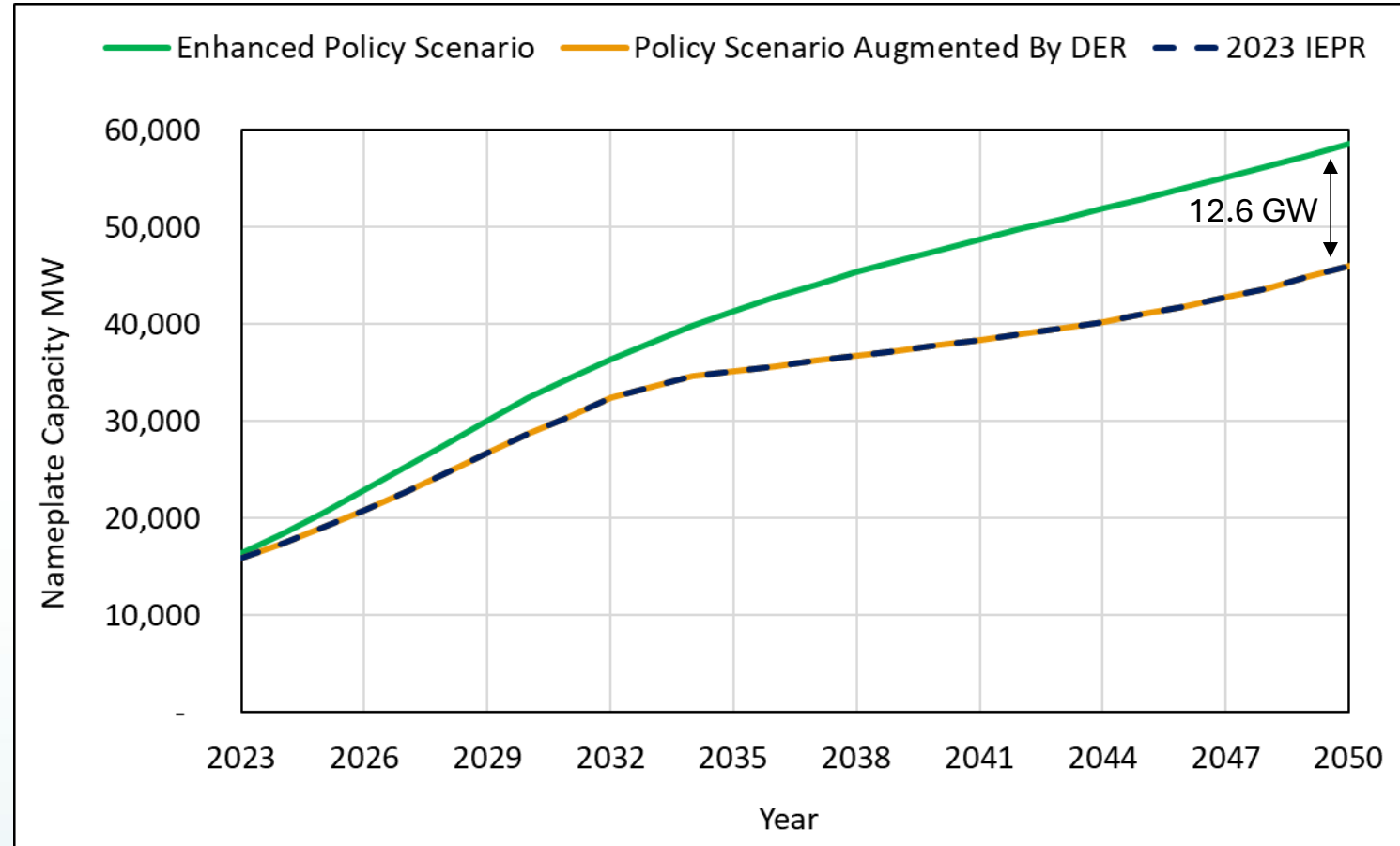
- NEM contractual turnover in Policy Scenario Augmented by DER and Enhanced Policy Scenario increases BTM storage capacity in 2050 by
  - 54% or 4.1 GW across IOU PAs
  - 23% or 0.2 GW across POU PAs
- Cost reductions in the Enhanced Policy Scenario increases BTM storage capacity in 2050 by an additional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

