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CITY OF BURBANK

WATER AND POWER

2024 INTEGRATED RESOURCE PLAN (IRP) & THE ROLE OF CLEAN FIRM RESOURCES

CEC IEPR WORKSHOP
JULY 29, 2025

Public Outreach

#	Outreach Type and Details
9 meetings	Stakeholder Technical Advisory Group (STAG) meetings. Made up of a diverse group of ratepayers, including non-profits, ratepayer advocates, sustainability advocates, large customers, small customers, etc.
4 meetings	Community stakeholder meetings (public meetings)
952 responses	IRP survey - 952 responses, advertised on the IRP website, Currents, billing inserts, etc.
10 meetings	Provided monthly updates to BWP Board from December 2022-November 2023
2 meetings	Provided updates to City Council on April 25, 2023, and July 25, 2023

Data Assumptions (April-May 2023)

Item	April-May 2023 Assumptions	Current Update
Load	Did not include data centers or other load additions and was based on planned projects as of May 2023	Potential 40-60 MW of 24/7 load coming online by 2025-2026.
Natural Gas Prices	$6.07 forecast for October 2023 in model	$7.06 as of 9/30/23 (spot market prices)
Energy Prices	Correlated with gas prices	Correlated with gas prices

Data Assumptions (April-May 2023)

ITEM	April-May 2023 Assumptions	Current Update
Renewable Energy Credits (REC)	$44/REC, with downward pressure on prices	$85/REC, with upward pressure for next 3-5 years
Intermountain Power Project (IPP)	Total costs of the project was estimated at $4.286 billion	As of 10/2/23, project costs are >$4.686 billion (increases debt service for BWP by $587k a year)

Technology Assumptions

ITEM	April-May 2023 Assumptions	Current Update
Hydrogen	Assume technology would be available for Magnolia, Lake and Intermountain	No change
Renewable Natural Gas (RNG)	RNG contracts would be in the amount needed	No available RNG contracts in the amount needed
Carbon Capture and Sequestration (CCS)	Requires at least 4 acres, does not get emissions to zero	No change
Small Modular Reactor (SMR)	$89/MWh (not including transmission), online 2030	Project delayed until after 2030

2 Selected Scenarios - 7 Modeled

Scenario Name	Details
SB1020 +SMR	Meet SB 100 requirements of 60% renewables by 2030, contracting for 25 MW of small modular reactor (SMR) by 2030 outside CA, meet the SB 1020 goal of 90% zero-carbon resources by 2035 and 100% zero-carbon resources by 2040
New Transmission & PPAs	Meet SB 100 requirements of 60% renewables by 2030, the BWP requirement of 100% zero-carbon by 2040 and working with LADWP to secure additional transmission services contracts to bring in renewables from Arizona, New Mexico, Barren Ridge of California and Imperial Irrigation District, for a total of 125 MW of renewables, via Power Purchase Agreements (PPAs) such as geothermal

Scorecard (driven by STAG & survey results)

Item	Details	Weight
Cost/Ratepayer Impacts	The total overall cost of the portfolio (the lower the costs, the higher the score)	40%
Reliability	Lower transmission losses and lower market purchases (the lower the losses and market purchases, the higher the score)	40%
Environmental Stewardship	Total greenhouse gas (GHG) emissions (the lower the emissions, the higher the score)	10%
Diversity	Type of resource, length/contract term of resources, type of technologies, location of resources, etc. A diverse resource portfolio is required per SB 350.	10%
Total		**100%**

Scorecard Results

Metric	Weight	Base case	Net Zero by 2030	SB1020+SMR	SB1020+SMR w/ 50% DEV &EV Demand	10% Higher EC & DEV Demand	10% Lower EV&DEV Demand	New Transmission & PPAs
MODEL FOR EACH SCENARIO		PLEXOS	PLEXOS	PLEXOS	PLEXOS	PLEXOS	PLEXOS	PLEXOS
Cost/Ratepayer Impacts	40%	39%	0%	35%	37%	39%	40%	39%
Reliability	40%	24%	8%	27%	40%	21%	25%	24%
Environmental Stewardship	10%	0%	10%	3%	4%	0%	0%	1%
Diversity	10%	0%	5%	8%	8%	0%	0%	10%
Total	100%	63%	23%	72%	89%	60%	66%	75%
Rank		5	7	3	1	6	4	2

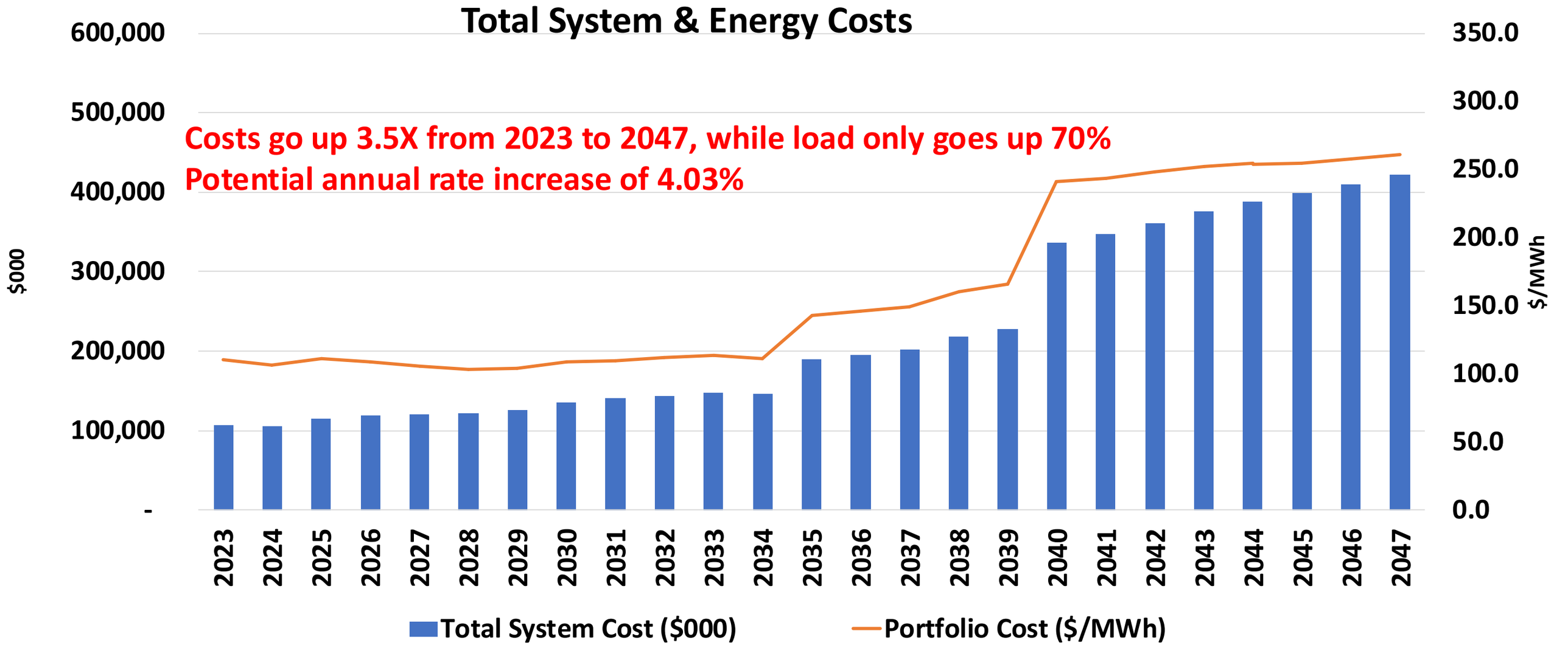
Preferred Scenario(s)

Metric	Weight	Base case	SB1020+SMR	10% Higher EV & DEV Demand	New Transmission & PPAs
MODEL FOR EACH SCENARIO		PLEXOS	PLEXOS	PLEXOS	PLEXOS
Cost/Ratepayer Impacts	40%	39%	35%	39%	39%
Reliability	40%	24%	27%	21%	24%
Environmental Stewardship	10%	0%	3%	0%	1%
Diversity	10%	0%	8%	0%	10%
Total	100%	63%	72%	60%	75%
Rank		5	3	6	2

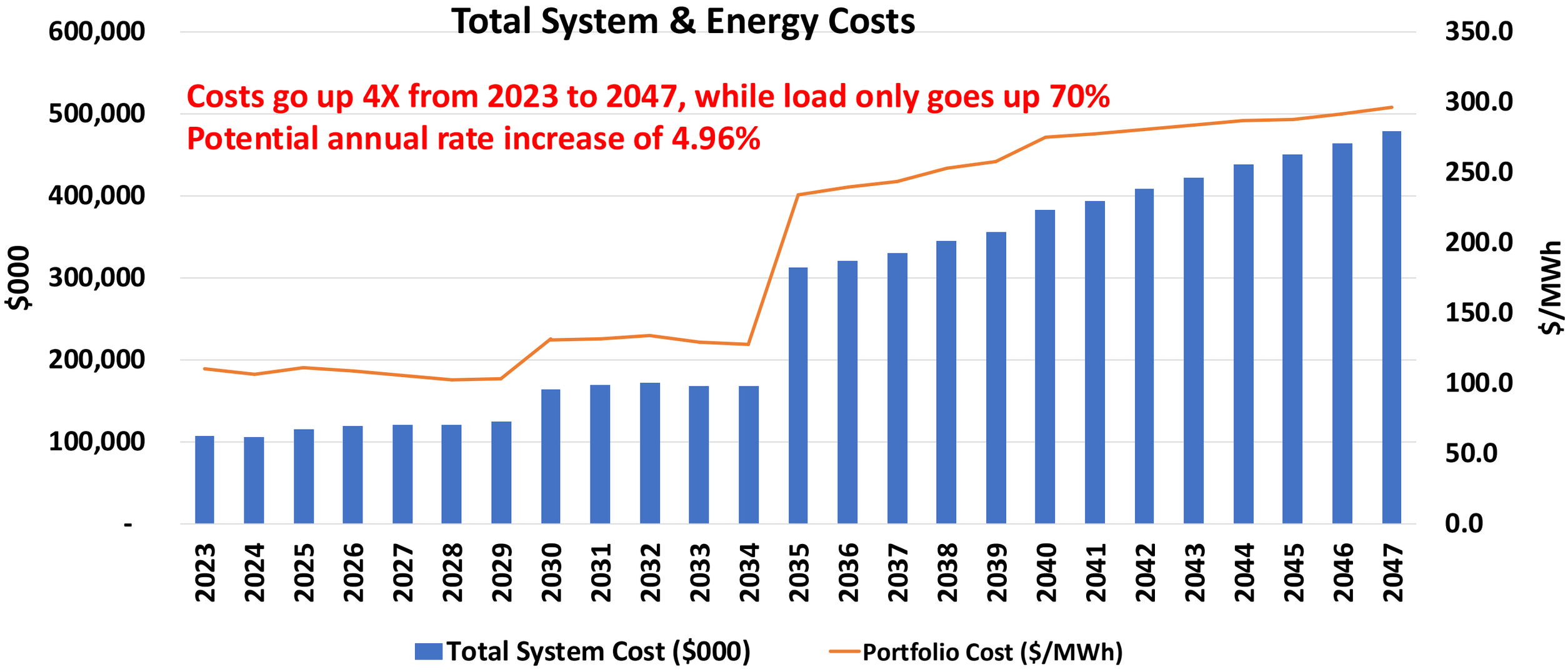
Projected Rate Impacts

Scenario	Additional Annual Rate Increase	Bill Increase 2047 vs. Current
Base Case	4.03%	158%
Net Zero by 2030	9.49%	694%
SB 1020+ SMR	4.96%	213%
SB 1020+SMR w/ 50% DEV & EV Demand	5.57%	256%
10% Higher EV&DEV Demand	3.94%	153%
10% Lower EV&DEV Demand	4.12%	163%
New Transmission & PPAs	4.03%	158%

New Transmission + PPAs



SB1020 + SMR


Total System & Energy Costs
Costs go up 4X from 2023 to 2047, while load only goes up 70%
Potential annual rate increase of 4.96%
$000
$/MWh
600,000
500,000
400,000
300,000
200,000
100,000
-
350.0
300.0
250.0
200.0
150.0
100.0
50.0
0.0
2023
2024
2025
2026
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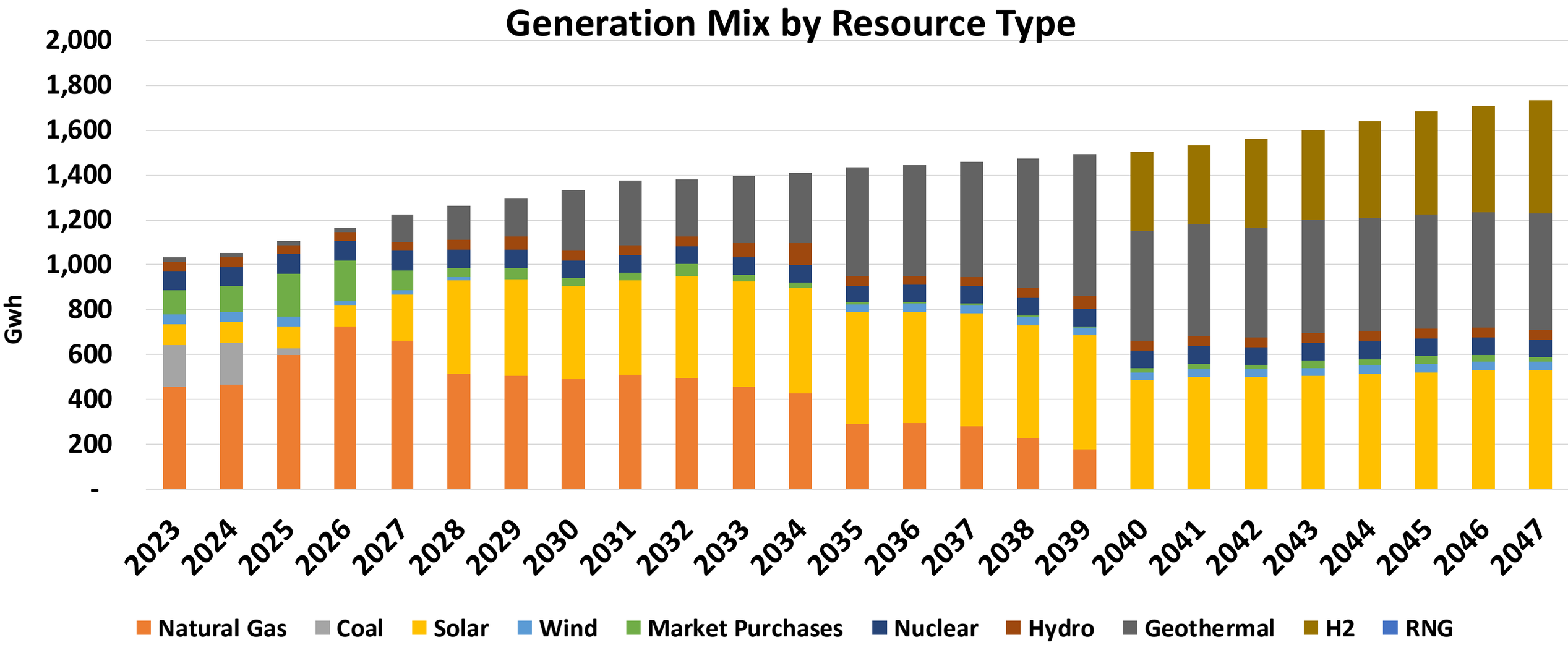
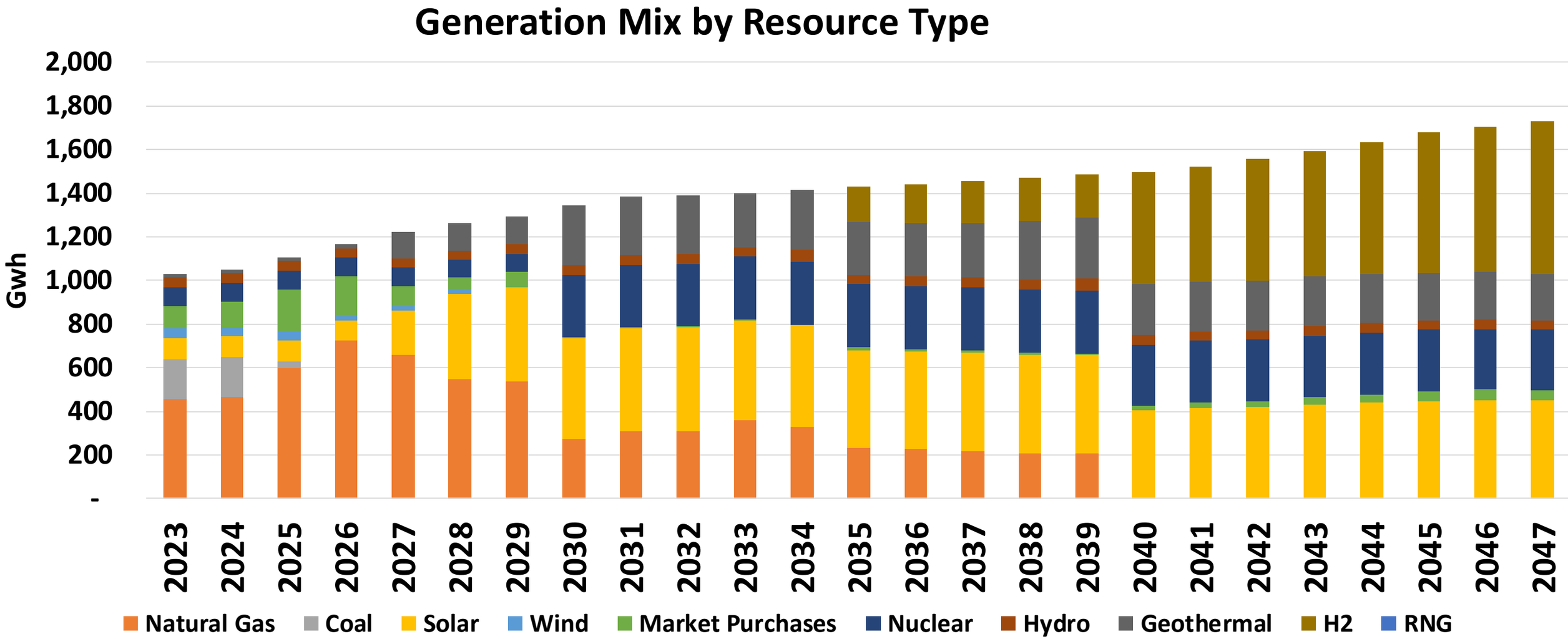
2045
2046
2047
Total System Cost ($000)
Portfolio Cost ($/MWh)

New Transmission + PPAs



SB1020 + SMR


Generation Mix by Resource Type
Gwh
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
-
2023
2024
2025
2026
2027
2028
2029
2030
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2040
2041
2042
2043
2044
2045
2046
2047
Natural Gas
Coal
Solar
Wind
Market Purchases
Nuclear
Hydro
Geothermal
H2
RNG

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