

DOCKETED

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Joint Agency Workshop on Senate Bill 350 2030 Energy Efficiency Savings Doubling Targets



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Presentation Overview

- Process background
- Proposed goals
- Next steps for goals adoption





PROCESS/STUDY BACKGROUND





Potential and Goals Study Uses

- Inform the CPUC as it adopts IOU net program goals
- Guide the IOUs in EE portfolio planning
- Inform the Additional Achievable Energy Efficiency included in the CEC's demand forecast and its development of SB350 targets
- Inform CPUC and CAISO grid planning and procurement efforts





2018+ Potential & Goals Update: Main Drivers

California Assembly Bill 802 (AB802)

- Incentivizes all energy savings, including those that are “below-code”
- Directs utilities to take into consideration normalized metered energy consumption when determining energy savings
- Encourages pursuit of behavior and operational efficiency opportunities

California Senate Bill 350 (SB350)

- Doubling of statewide energy efficiency savings by 2030 provided that doing so is cost-effective, feasible and there is no adverse impact to health and safety
- Identifies 11 sources of efficiency that can count towards the doubling goal
- Goals are not be constrained based on past program performance

CPUC Cost Effectiveness Tests and Inputs Updates

- Multiple changes considered through the Integrated Distributed Energy Resources (IDER) proceeding (R. 14-10-003).





Collaborative Process

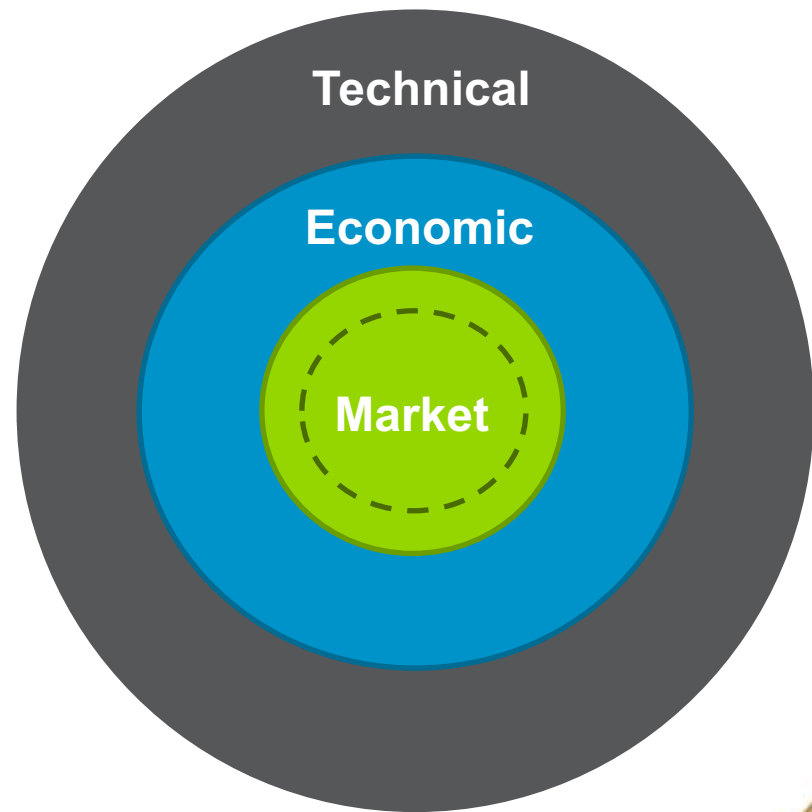
Date	Topics of Discussion
July 19, 2016	Overview of the scope of the 2018 Potential and Goals Study
August 29, 2016	Residential, Commercial and AIMS Measure Selection
November 4, 2016	BROs intervention selection, Whole Building characterization methodology, and avoiding double counting
December 9, 2016	(Webinar) AIMS Methodology
December 12, 2016	(Webinar) Calibration, Scenarios, and Cumulative Savings
April 20, 2017	(Webinar) BROs Draft Results
April 28, 2017	(Webinar) Low Income Methodology/Data
June 15, 2017	Draft study released via ruling for formal comments
August 25, 2017	Proposed decision on adopted goals out for comment





Potential and Goals Study

- **Technical Potential:** Assumes the highest level of efficiency for all technically applicable opportunities to improve efficiency are taken. Assumes no constraints, no barriers, 100% acceptance of technologies.
- **Economic Potential:** The subset of technical potential when limited to only cost effective measures. Assumes 100% of technologies that are cost effective are installed.
- **Market Potential:** Efficiency savings that could be expected in response to specific levels of incentives and assumptions about policies, market influences, and market barriers. Market potential can vary by scenario based on policy/program assumptions.





Methods and Data Updates

- **2015 and 2018 studies are modeled under different policy frameworks**
 - Net vs. Gross savings
 - Updated base avoided costs
 - Multiple scenarios as opposed to one forecast
- **2018 study expanded scope**
 - Complete refresh of technology list
 - Addition of to-code potential assessment
 - Increased BROs interventions
- **2018 study uses new data**
 - New DEER and approved workpaper inputs
 - Calibrated to more recent program activity





Scenarios

Scenario	Cost Effectiveness Screen	Program Engagement
TRC Reference	TRC test using 2016 Avoided Costs	Reference
mTRC (GHG Adder #1) Reference	TRC test using 2016 Avoided Costs + IOU proposed GHG Adder	Reference
mTRC (GHG Adder #2) Reference	TRC test using 2016 Avoided Costs + Commission staff proposed GHG Adder	Reference
PAC Reference	PAC test using 2016 Avoided Costs	Reference
PAC Aggressive	PAC test using 2016 Avoided Costs	Aggressive





PROPOSED GOALS





Proposed Decision (Mailed 8/25/17)

- **Proposes the adoption of goals based on Total Resource Cost Test, using a GHG Adder reflecting CA Air Resources Board Cap-and-Trade Allowance Price Containment Reserve Price adopted in D.17-08-022 (R.14-10-003, IDER)**
 - To account for 2030 GHG targets not currently in the 2016 Avoided Cost
 - TRC test, consistent with proposed IRP valuation
 - Changes to DER valuations should be discussed in IDER proceeding
- **Defers adoption of cumulative goals until staff can assess methods developed by CEC for SB350 cumulative savings**
 - No new approaches for valuation during the development of this study
- **Continues practice of setting separate goals for incentive programs and Codes & Standards programs**





Comparison with 2015 Study

High level comparison – the two studies differ in many ways

	Electric		Gas	
	2018	2024	2018	2024
Traditional Rebate *	+3%	+22%	+48%	+77%
BROs **	+39%	+135%	+126%	+191%
C&S***	+31%	+148%	+135%	+270%

* Gross, incremental savings, mTRC Scenario, includes BROs reference scenario and Low Income

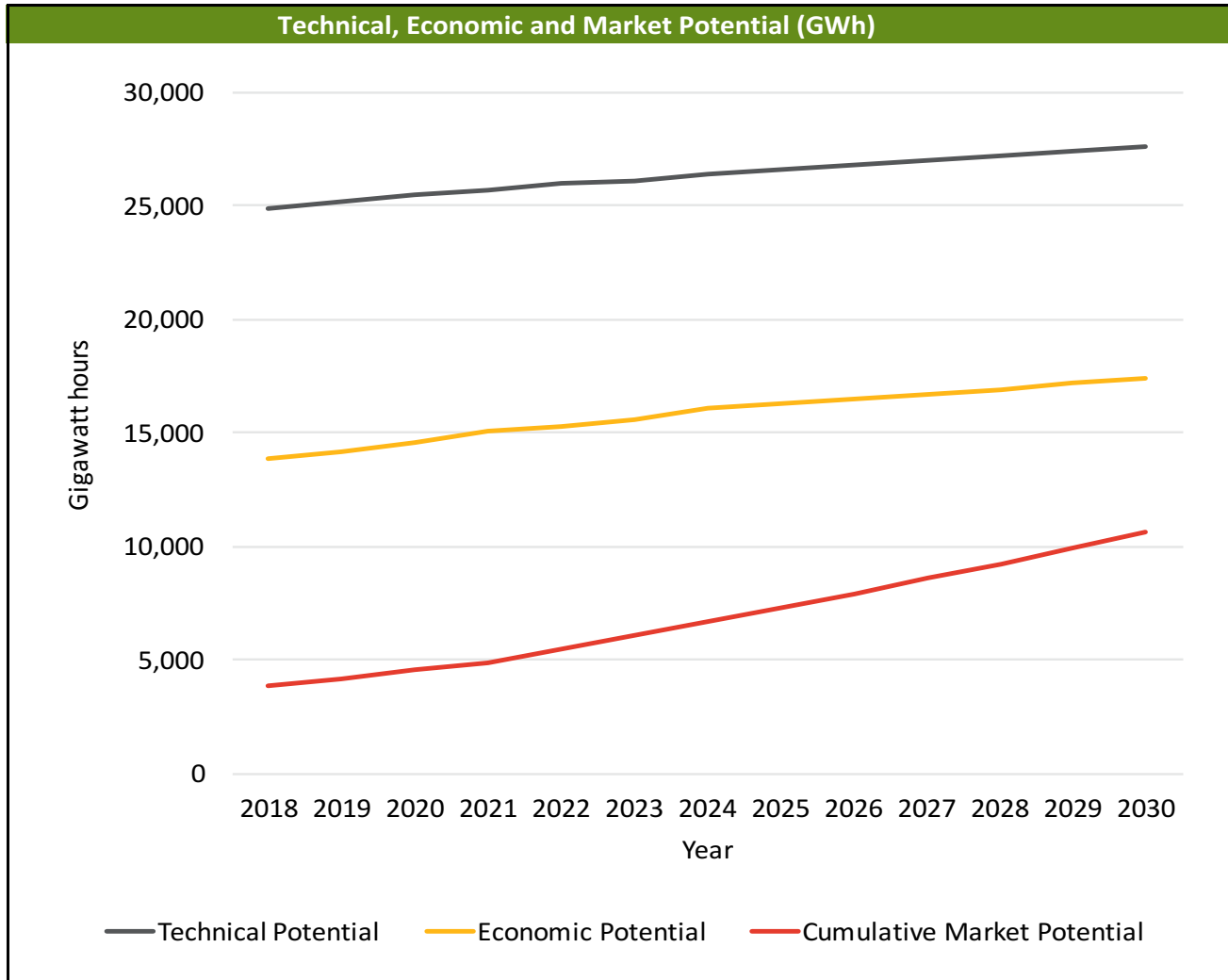
** Reference scenario

*** Net IOU attributable



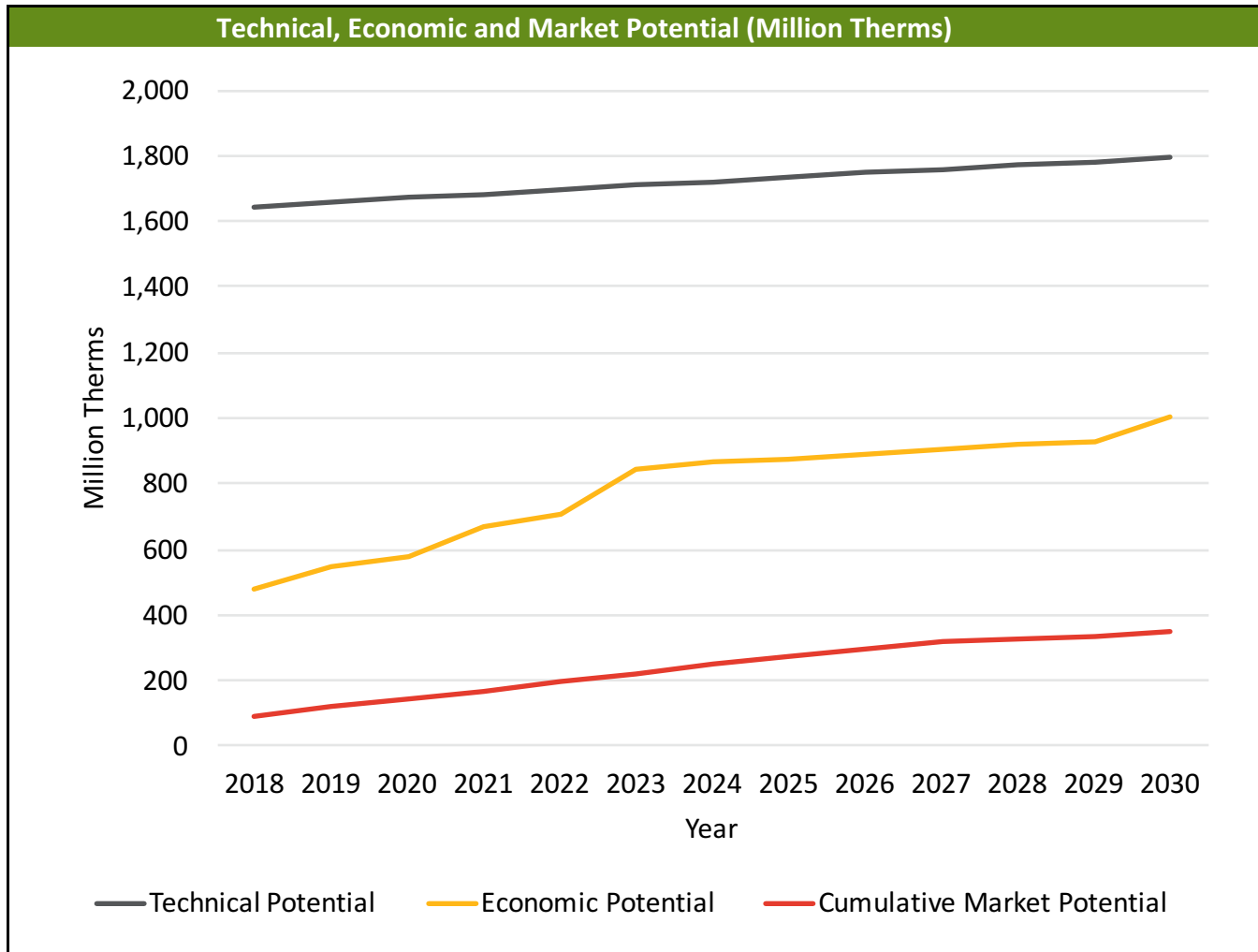


Electricity Potential (GWh)





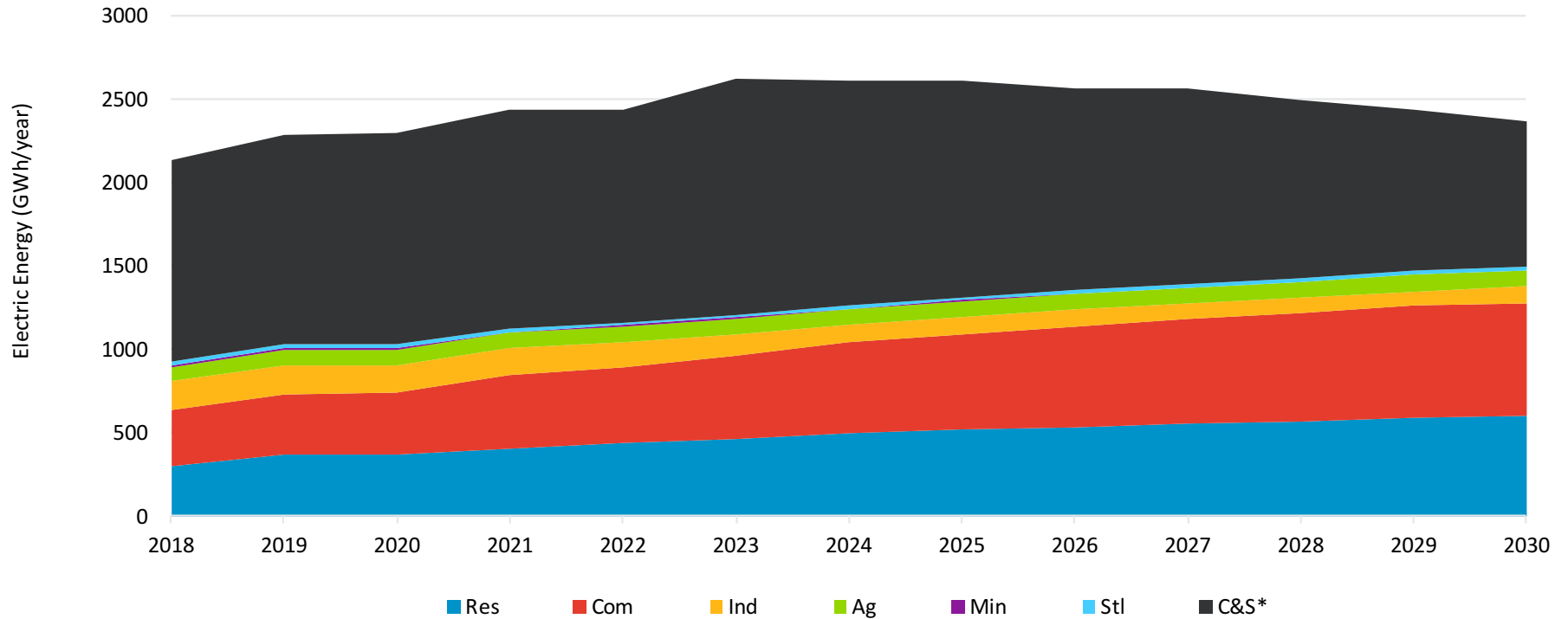
Gas Potential (MMTherms)





Incremental Electric Savings

Incremental Net Market Potential from Incentive Programs and Codes and Standards



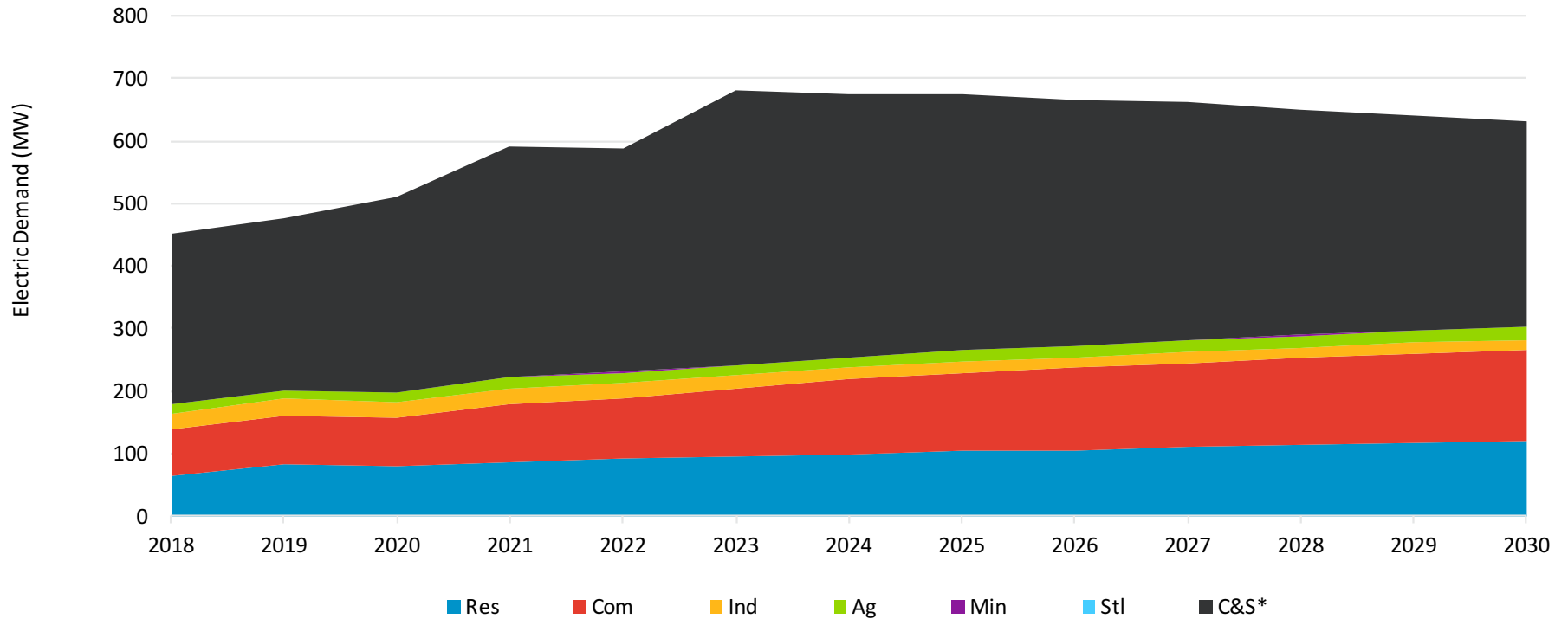
*C&S savings reported as Net IOU attributable.





Incremental Demand Savings

Incremental Net Market Potential from Incentive Programs and Codes and Standards



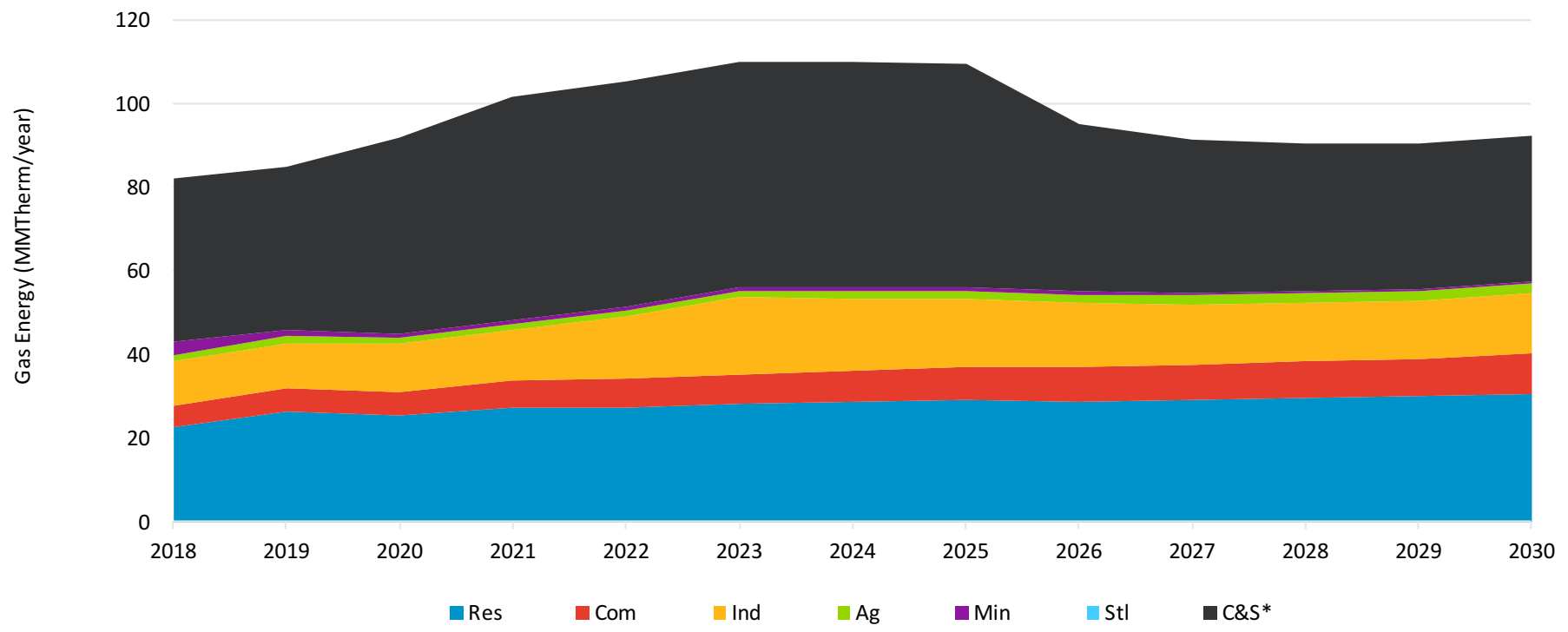
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Incremental Gas Savings

Incremental Net Market Potential from Incentive Programs and Codes and Standards

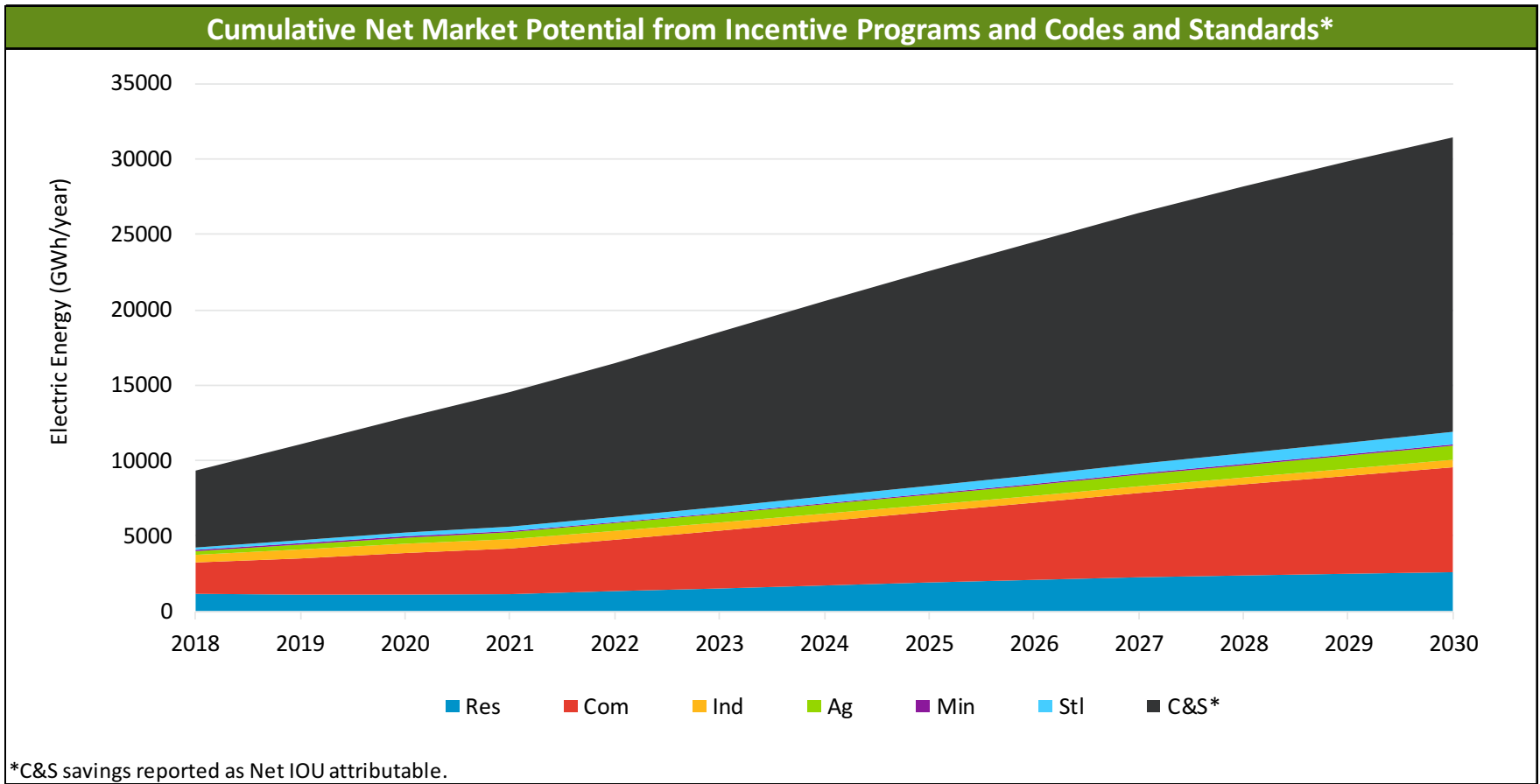


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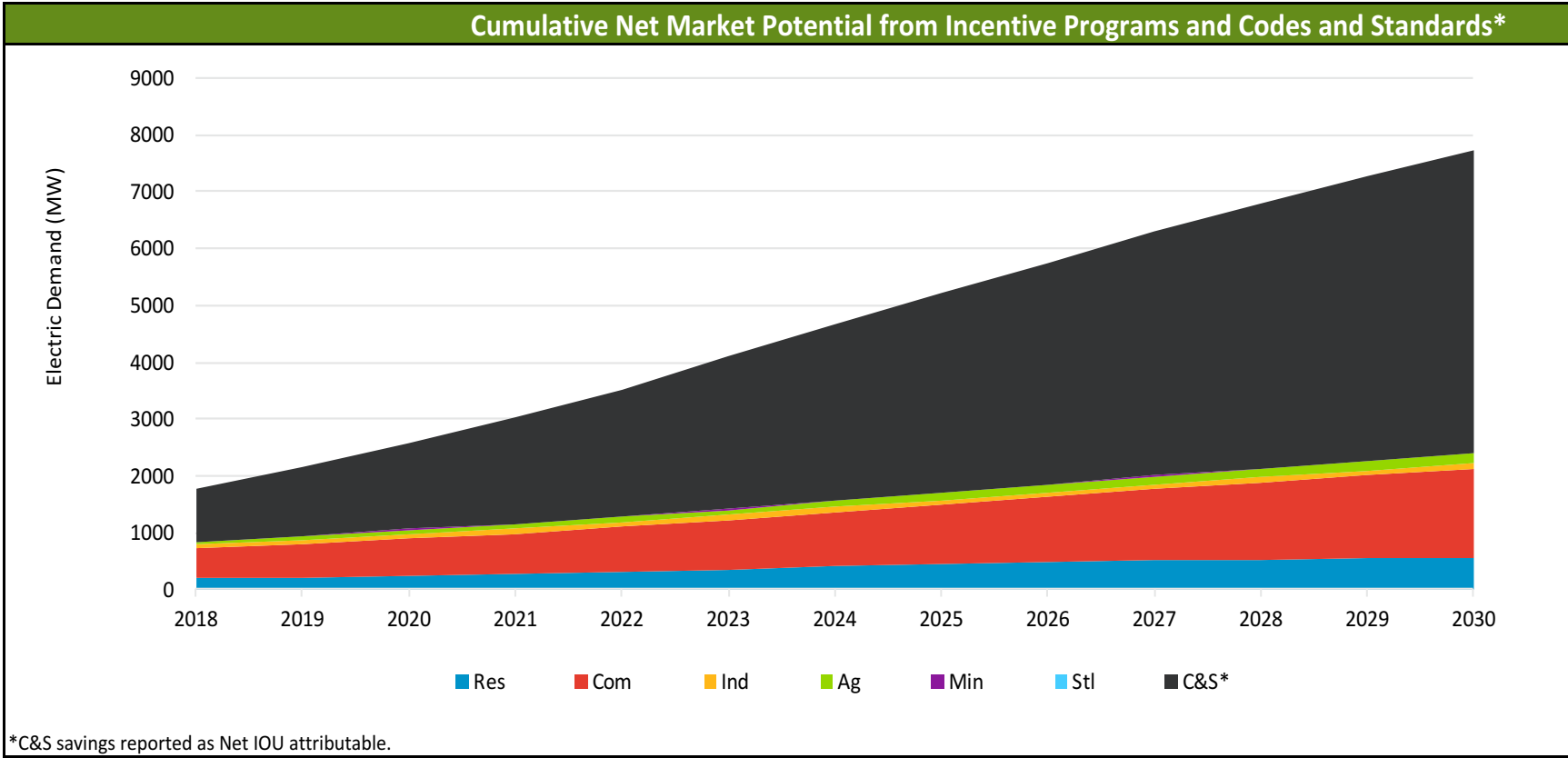


Cumulative Electric Savings



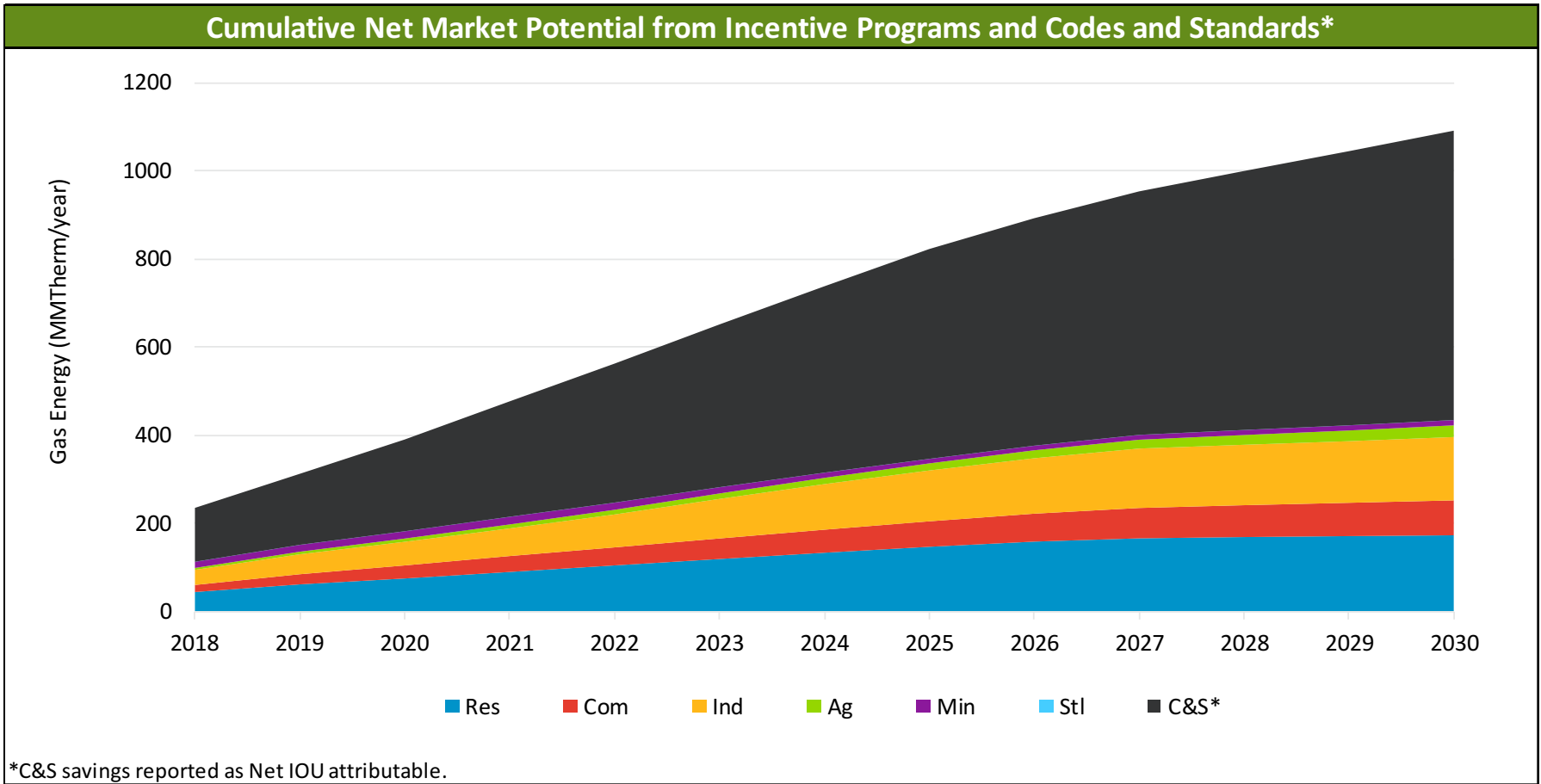


Cumulative Demand Savings





Cumulative Gas Savings





Next Steps for Goals Adoption

- Comments on Proposed Decision – 9/14/2017
- Reply comments – 9/19/2017
- Earliest opportunity for a Commission vote – 9/28/2017 (San Diego Business Meeting)
- After formal adoption, goals remain in place until new goals are adopted





Additional Resources

- 2018 + potential and goals study and supporting materials:
<http://www.cpuc.ca.gov/General.aspx?id=6442452619>
- Administrative Law Judges Julie Fitch and Valerie Kao's Proposed Decision:
<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M194/K656/194656346.PDF>





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