

MEMORANDUM | September 2, 2026

TO Kristen Strellec and Charles Paris; Bureau of Ocean Energy Management (BOEM)

FROM Jason Price and Webster Batista-Lin; IEc

SUBJECT Update of MarketSim Baseline Projection Using the *AEO 2026*

BOEM's Market Simulation Model (MarketSim) assesses the energy market impacts of additional production on the Outer Continental Shelf (OCS) compared to a baseline forecast. In April 2026, U.S. Energy Information Agency (EIA) published the *Annual Energy Outlook 2026 (AEO 2026)*.¹ The purpose of this memo is to summarize this most recent update of the MarketSim baseline projection using the *AEO 2026*.

In November 2025, Industrial Economics (IEc) updated the baseline projection in MarketSim to reflect the *AEO 2025* Reference case.^{2,3} Because the *AEO 2025* does not include baseline projections for a limited number of the variables that MarketSim requires for its baseline projection, IEc supplemented the *AEO 2025* with data from additional sources described below. Details on this baseline update are included in sections 2.3 and 2.4 of the *Interim Market Simulation Model (MarketSim) and the Offshore Environmental Cost Model (OECM) updates documentation* (Interim Model Updates Documentation).⁴

At BOEM's request, IEc updated the baseline projection in MarketSim to reflect the *AEO 2026* Counterfactual Baseline case. The Counterfactual Baseline case was previously referred to as the Reference case in prior editions of the *AEO*.

Baseline Projection Data

MarketSim estimates the rates at which additional OCS production would displace substitute energy sources relative to the baseline energy market forecast included in the model. This forecast consists of energy supply and demand projections by fuel type, as well as projections of fuel prices. In June 2026, the baseline data in MarketSim were updated using the Counterfactual Baseline case projections in the *AEO 2026*, supplemented by

¹ Energy Information Administration. (2026, April 8). Annual energy outlook 2026 (Narrative). April 2026. https://www.eia.gov/outlooks/aeo/pdf/AEO_Narrative.pdf

² Within the narrative accompanying their AEO 2025, EIA describes their reference case as representing how the U.S. energy markets could operate under laws and regulations current as of December 2024 and under historically observed technological growth assumptions.

³ Energy Information Administration. (2025, April 15). Annual energy outlook 2025 (Narrative). April 2025. <https://www.eia.gov/outlooks/archive/aeo25/pdf/2025/AEO2025-narrative.pdf>

⁴ Industrial Economics Inc., Eastern Research Group Inc., ABSG Consulting Inc. 2026. Interim Market Simulation Model (MarketSim) and the Offshore Environmental Cost Model (OECM) updates documentation. Sterling (VA): U.S. Department of the Interior, Bureau of Ocean Energy Management. 169 p.

data from EIA's *Short-Term Energy Outlook*⁵ and the Organization of the Petroleum Exporting Countries' (OPEC's) *World Oil Outlook 2050*.⁶ The *AEO 2026* includes most of the baseline data required by MarketSim; the only data that the *AEO 2026* lacks for a complete MarketSim baseline are non-U.S. oil supply and non-U.S. oil demand. This gap in the *AEO 2026* forecast was addressed using the following approach:

1. **Develop non-U.S. oil supply forecast through 2027:** The *Short-Term Energy Outlook* includes projections of global oil supply and U.S. oil supply through 2027. Non-U.S. oil supply was calculated by subtracting the latter from the former.
2. **Develop non-U.S. oil supply forecast beyond 2027:** To project non-U.S. oil supply beyond 2027, we applied year-over-year growth rates in non-U.S. oil production derived from data published in OPEC's *World Oil Outlook 2050*. For example, the growth rate for non-U.S. oil production between 2027 and 2028, as derived from the *World Oil Outlook*, was applied to year 2027 non-U.S. oil production in order to calculate non-U.S. production for 2028. The growth rate between 2028 and 2029 implied by the *World Oil Outlook* was then applied to the year 2028 value to calculate the projected non-U.S. oil supply value for 2029, and so on.
3. **Calculate global oil supply and demand:** Following the estimation of non-U.S. oil supply, we calculated global supply by summing the non-U.S. projections estimated based on step 1 and 2 with U.S. supply as obtained from the *AEO 2026*. Using the assumption that world oil markets are in equilibrium in the baseline forecast, we then set global oil demand equal to global supply.
4. **Calculate non-U.S. oil demand:** As a final step, we calculated non-U.S. oil demand by subtracting U.S. demand (as obtained from the *AEO 2026*) from global oil demand (calculated in the step 3).

For previous MarketSim baseline data updates (i.e., those prior to the November 2025 update reflecting the *AEO 2025*), BOEM provided a constrained version of the AEO Reference case that reflected no new oil and gas leasing on the OCS. For this current update, IEC relies on the *AEO 2026* Counterfactual Baseline case (previously referred to as the Reference case⁷) rather than a constrained *AEO 2026* case. As detailed in the sensitivity analyses presented in the MarketSim documentation, use of the Counterfactual Baseline case rather than a constrained case does not significantly affect the energy substitution patterns estimated by MarketSim.⁸ In addition, EIA states that the Counterfactual Baseline case “provides an experimental control for exploring

⁵ U.S. Energy Information Administration. 2026. Short term energy outlook, April 2026, data accessed at https://www.eia.gov/outlooks/steo/data/browser/#/?v=6&f=A&s=&start=1998&end=2027&linechart=PAPR_WORLD&ctype=linechart&motype=0&id=.

⁶ Organization of the Petroleum Exporting Countries. 2025. World Oil Outlook 2050. Vienna (Austria). 309 p., accessed at <https://www.opec.org/assets/assetdb/woo-2025.pdf>

⁷ EIA, in its *AEO 2026* Narrative, states that the “Reference case was renamed the Counterfactual Baseline case in AEO2026. No change has been made to the methodology of case construction; the manner in which the case was constructed remains the same as in previous years. The purpose of the Reference case was always to provide a counterfactual baseline, but it was frequently misinterpreted and mischaracterized as the EIA’s preferred, safest, or most likely case. On the contrary, it is a tool to illuminate the other cases.”

⁸ Industrial Economics, Inc. 2023. Consumer surplus and energy substitutes for OCS oil and gas production: the 2023 revised Market Simulation Model (MarketSim). Sterling (VA): US Department of the Interior, Bureau of Ocean Energy Management. 93 p. Report No.: OCS Study BOEM 2023-055.

long-term trends.”⁹ As such, the *AEO 2026* Counterfactual Baseline case is the most appropriate for BOEM to use in its modeling baseline because it (1) acts as the ‘experimental control’ by which BOEM is able to simulate market responses to new, incremental OCS production; (2) is the most recently available EIA projection; (3) reflects current laws and policies; and (4) aligns most closely with the mandated One Big Beautiful Bill Act sales.

Inflation Projections

MarketSim also includes projections of U.S. inflation so that model users may change the year’s dollars in which results are presented. We updated the inflation forecasts in MarketSim with those included in the *AEO 2026*.

⁹ Energy Information Administration. (2026, April 8). Annual energy outlook 2026 (Narrative). April 2026.
https://www.eia.gov/outlooks/aeo/pdf/AEO_Narrative.pdf