

# US election: implications for gas and power markets

September 26, 2024

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# Executive Summary

- Ahead of the US presidential election on November 5, 2024, this report analyzes the potential impact on gas and power markets under Trump and Harris presidencies.
- Based on current announced policies the Trump administration is expected to have a limited impact on power and gas prices. However, a more extreme “Project 2025” agenda could slash wind, solar, and battery deployment by more than █ GW by 2040.

## ① Executive summary

The change in US administrations over the last ten years has had little impact on global commodities markets and the power sector’s shift from coal to renewable generation. Ahead of the next presidential election, the two primary candidates, Kamala Harris and Donald Trump, have differing opinions on various energy topics.





- During his election campaign, Trump has vowed to “drill, baby, drill,” to “unleash American energy,” and slow the clean energy transition through major cuts to funding allocated to clean technology under the Inflation Reduction Act (IRA).
- Harris, with less mention of new energy policies on the campaign trail, is largely expected to continue Biden-era policies of accelerating the clean energy transition via the IRA and setting up barriers to oil and gas leasing permits and LNG exports.

Two modelled scenarios based on a Trump vs. Harris election outcome include what is expected of, and realistic for, each administration to achieve: the former focused on China tariffs, coal plant subsidies, and reduced EV subsidies; the latter focused on stricter LNG export approvals. Further sensitivities reflect more extreme energy policy decisions taken by either president, particularly if a trifecta is achieved and ‘Project 2025’ is implemented, or a ‘Green New Deal’ is enacted.

- The "Trump Presidency" scenario has a limited impact on the pace of the energy transition. Wind, solar and battery deployment is █ GW or █% lower by 2040 across the major power markets included in this analysis – ERCOT, CAISO, PJM, MISO, NYISO and ISO-NE. Wholesale power prices vary by \$█/MWh across ISOs between 2025 and 2040.
- Gas price outcomes are similar across the scenarios, highlighting the limited Presidential power to influence gas markets. Trump tariffs would increase domestic gas production by █% in 2040 but the tariffs also slow global economic growth, leading to lower global gas demand and reducing LNG exports by █%. Under a more extreme LNG terminal expedition under Trump, there is no significant change in Henry Hub prices in an oversupplied LNG market.
- A more extreme “Project 2025” sensitivity removes tax credit support for renewables and storage. This results in a much more significant slowdown in the pace of the energy transition, with █ GW or █% fewer renewables and batteries projects by 2040 compared to Aurora Central.

# We modelled a range of scenarios to reflect various outcomes under a Trump or Harris election in November

Input changes to Trump and Harris Presidency scenarios and sensitivities (impacts relative to Aurora Central)

Policy area <sup>1</sup>	Sensitivities			Sensitivities		
	Trump Presidency	LNG Overbuild <sup>2</sup>	Project 2025	Harris Presidency	Federal Leasing Ban <sup>2</sup>	Green New Deal <sup>3</sup>
<b>Subsidies</b> 	<ul style="list-style-type: none"> <li>Slower EV uptake.</li> <li>Delayed coal retirements.</li> </ul>		<ul style="list-style-type: none"> <li>As Trump Presidency</li> <li>Tax credit support for wind, solar, and batteries ends in 2025.</li> </ul>			<ul style="list-style-type: none"> <li>Faster overall electrification.</li> <li>2 p.p. lower cost of capital for renewables (Green Bank).</li> <li>Tax credit support stays constant through horizon at 2024 levels.</li> </ul>
<b>Tariffs</b> 	<ul style="list-style-type: none"> <li>50% tariff on Chinese imports and 10% tariff across the board, with no retaliation tariffs.</li> </ul>	<ul style="list-style-type: none"> <li>As Trump Presidency</li> </ul>	<ul style="list-style-type: none"> <li>As Trump Presidency</li> </ul>			
<b>Permitting</b> 		<ul style="list-style-type: none"> <li>Expediting LNG terminal approvals and facilitating rapid expansion of 130mtpa (+54%) more capacity by 2031.</li> </ul>		<ul style="list-style-type: none"> <li>No new LNG terminals built in the US apart from those that have reached FID or are under construction prior to Harris' presidency.</li> </ul>	<ul style="list-style-type: none"> <li>As Harris Presidency</li> <li>Additional ban on new oil and gas leases on federal territory.</li> </ul>	<ul style="list-style-type: none"> <li>As Harris Presidency</li> </ul>
<b>Other</b> 						<ul style="list-style-type: none"> <li>Regions with carbon prices<sup>4</sup> see those increase to their respective caps by 2050.</li> <li>Lower coal prices to reflect lower demand for coal due to faster coal plant retirements</li> </ul>











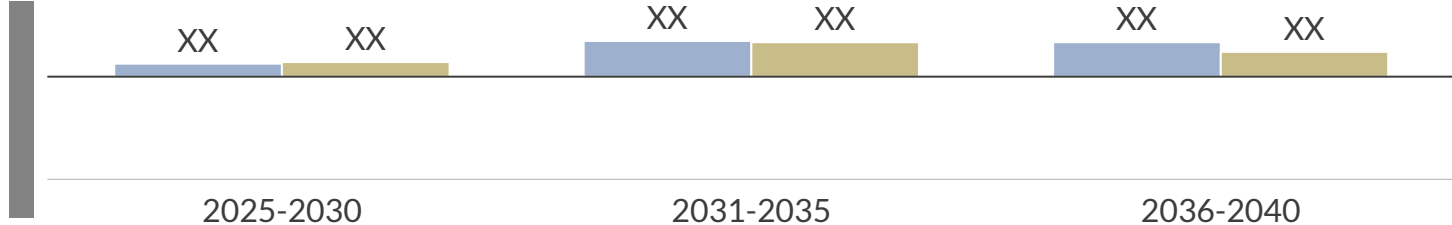




1) Tariffs and federal oil and gas leasing represent changes to gas price modelling only, all other input changes reflect changes to power market modelling only. 2) Results only available for gas price results, not power markets. 3) Does not include compliance with the EPA's Greenhouse Gas Rule. 4) CAISO, ISO-NE, PJM, and NYISO are fully covered; MISO assumes only states with a Democratic governor.

# Aurora forecasts that, while US natural gas flows will markedly shift under either presidential candidate, impacts on Henry Hub gas prices will be minimal

	Trump Presidency	Harris Presidency
Scenario	50% tariff on Chinese imports and 10% tariff on the rest of the world, as per Trump's proposal.	No new build LNG terminals in the US beyond existing and under construction terminals, due to stricter emissions criteria.
Modelling outcomes		
Gas demand	<ul style="list-style-type: none"> <li> Trump tariffs encourage consumer switching and buildout of domestic industries, <b>increasing US gas demand</b> █% by 2040.</li> <li> Trade flows from China to the US decrease, depressing Chinese gas demand growth.</li> </ul>	No change from Central
US LNG exports	Trump tariffs <b>reduce international demand for US LNG exports</b> █% by 2040, particularly from China.	Constraining LNG buildout <b>limits availability of US export volumes</b> █% by 2040, hindering Asia's coal to gas transition
US gas production	No significant change from Central.	<b>Production is marginally lower</b> due to lower international demand for US gas.
Pipeline flows	<b>Net Canadian imports increase by</b> █% by 2040 to supply additional domestic demand in the North.	<b>Net Canadian imports fall by</b> █% by 2040.
Henry Hub gas price	<p><b>Henry Hub wholesale price delta with Central</b> \$/MMBtu (real 2023)</p> <p>2025-2030      2031-2035      2036-2040</p> <p>█ Harris █ Trump</p>	
	<p> </p> <p>Both Trump and Harris scenarios are somewhat bearish, within █% by 2040, on Henry Hub.</p>	



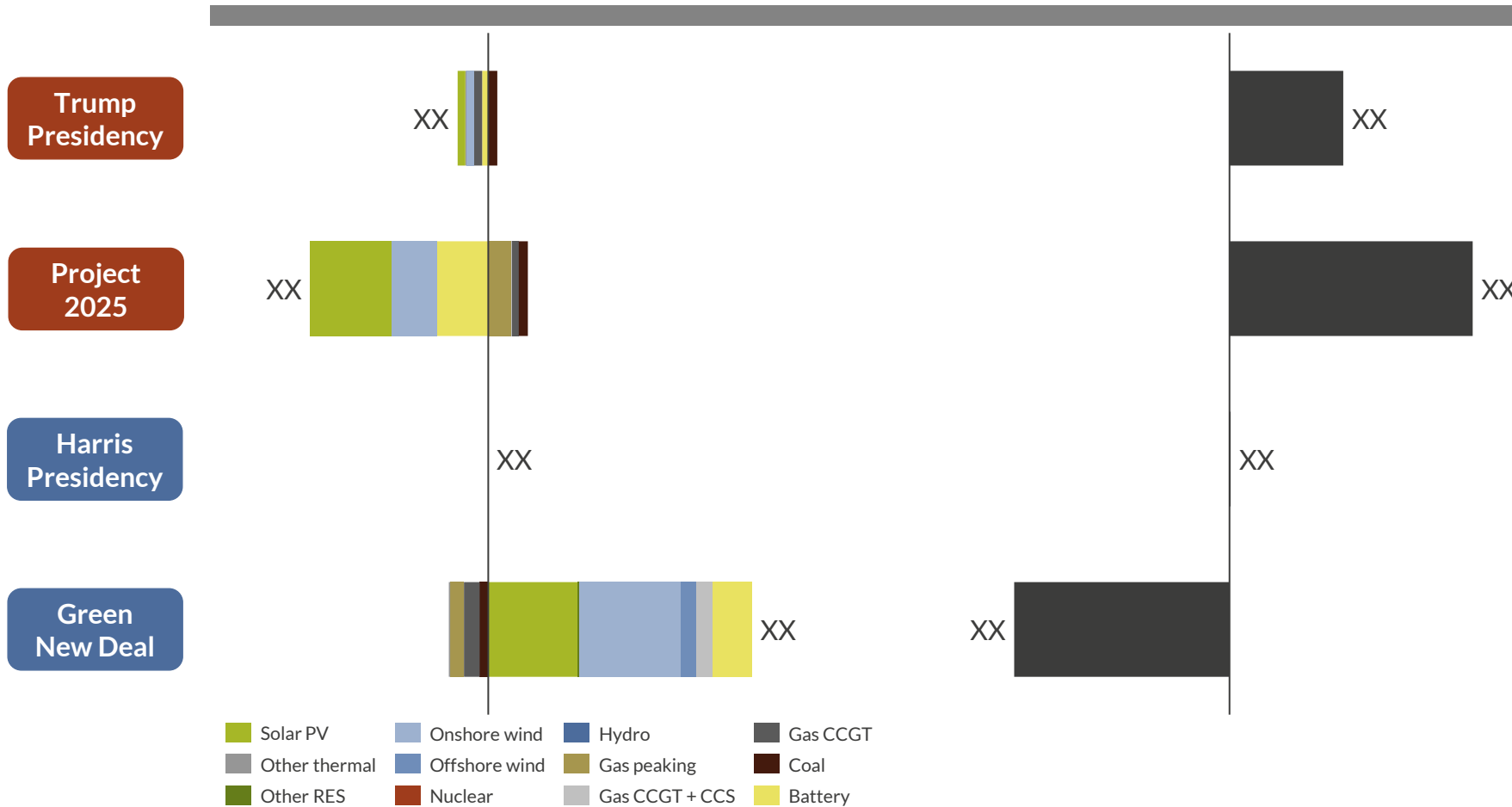
# In the case of more extreme policies by either candidate, although there is slight upwards pressure on Henry Hub gas prices, impacts remain minimal

	LNG Overbuild	Federal Leasing Ban
Scenario	 Trump Presidency + expediting LNG terminal approvals and facilitating rapid expansion of 54% more capacity by 2031	 Harris Presidency + ban on new oil and gas leases on federal territory, which is currently 10% of US gas production.
Modelling outcomes		
Gas demand	 Trump tariffs increase US demand but reduce China demand.	 No change from Central.
US LNG exports	 Additional US LNG supply displaces more expensive cargos, increasing international demand for US LNG by █% by 2030. By 2040, tariffs counteracts LNG overbuild, reducing the export increase to █%.	 Constraining LNG buildout and gas production on federal land limits availability of US export volumes █% by 2040.
US gas production	 Production increases by █% by 2030 to meet higher domestic and international demand for LNG.	 Production decreases by █% as higher Permian basin productivity counteracts loss of production from the Mountain region and the Gulf of Mexico.
Pipeline flows	 Net Canadian imports increase by █% by 2040 to supply additional domestic demand in the North.	 Net Canadian imports increase by █% by 2040 to fill supply gap from the federal land ban the Mountain region.
Henry Hub gas price	<p>Henry Hub wholesale price delta with Central \$/MMBtu (real 2023)</p>  <p>2025-2030                      2031-2035                      2036-2040</p>	
	<p>   </p> <p>Both gas sensitivities lead to slight upward pressure on Henry Hub, within █% by 2035.</p> <p>█ Federal Leasing Ban █ LNG Overbuild</p>	

# Control of the presidency has little impact on the energy transition, but ending renewables tax credits cuts buildout by 2040 by █ GW

Installed capacity delta with Central across US ISO regions in 2040<sup>1</sup>  
GW

Cumulative emissions delta with Central, 2025-2040<sup>1</sup>  
Million metric tons CO<sub>2</sub>e

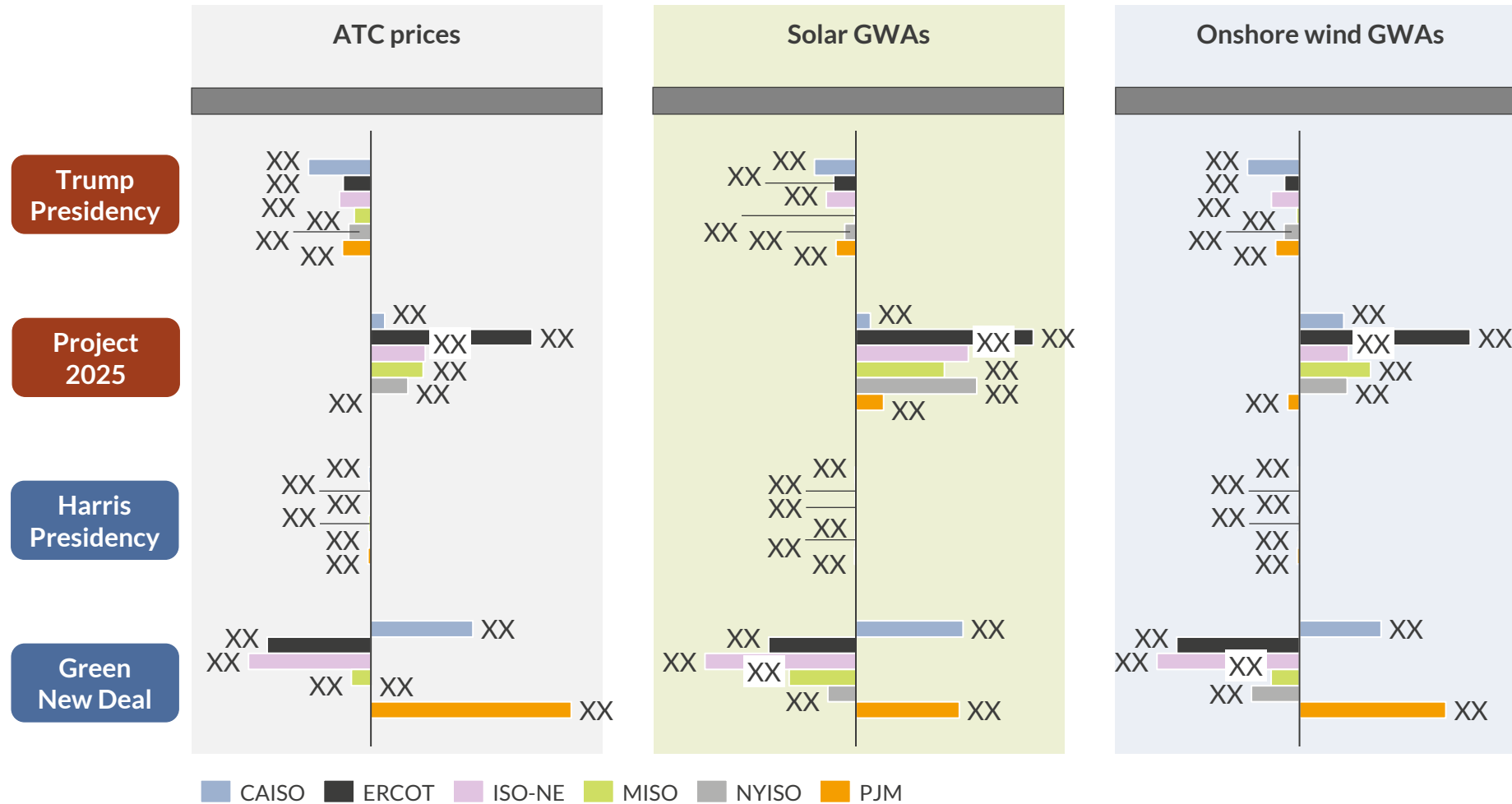


- Slower EV uptake and coal subsidies depress renewables buildout slightly under the baseline Trump scenario.
- A Harris Presidency is represented as a continuation of Biden-era energy policy and so closely tracks Aurora Central.
- The removal of renewables tax credits in the Project 2025 sensitivity sees █ GW less of renewables buildout by 2040 – █% less than in Aurora Central.
- Maintenance of tax credits and higher carbon prices in the Green New Deal sensitivity spurs buildout of █ GW more renewables, █% more than in Aurora Central.
- Thermal subsidies and delayed retirements raise emissions in the Trump Presidency scenario and Project 2025 sensitivity, with 2025-40 total emissions reaching █% and █% of 2022's power sector levels, respectively.

1) Sum across CAISO, ERCOT, ISO-NE, MISO, NYISO, and PJM. Excludes SPP as well as WECC, and SERC non-ISO regions.

# Lower prices in a Trump presidency are primarily due to reduced EV demand, not generation changes

Price deltas with Central by US ISO (2025-2040 average)  
\$/MWh (2023 real)



- Despite promises to “unleash American energy” through increased fossil-fuel drilling, prices under a Trump presidency see little change.
- The Project 2025 scenario’s elimination of tax credits for renewables sees power prices rise across the country, with ERCOT particularly vulnerable due to its lack of a capacity market and its scarcity adder.
- GWAs rise disproportionately as reduced buildout limits solar and wind cannibalisation.
- The Green New Deal scenario sees higher EV demand and faster electrification raise prices in CAISO, but continued support for renewables and higher carbon prices decrease power prices across other ISOs.
- PJM is the only exception, as the expansion of RGGI to encompass the entire ISO forces earlier coal retirements.

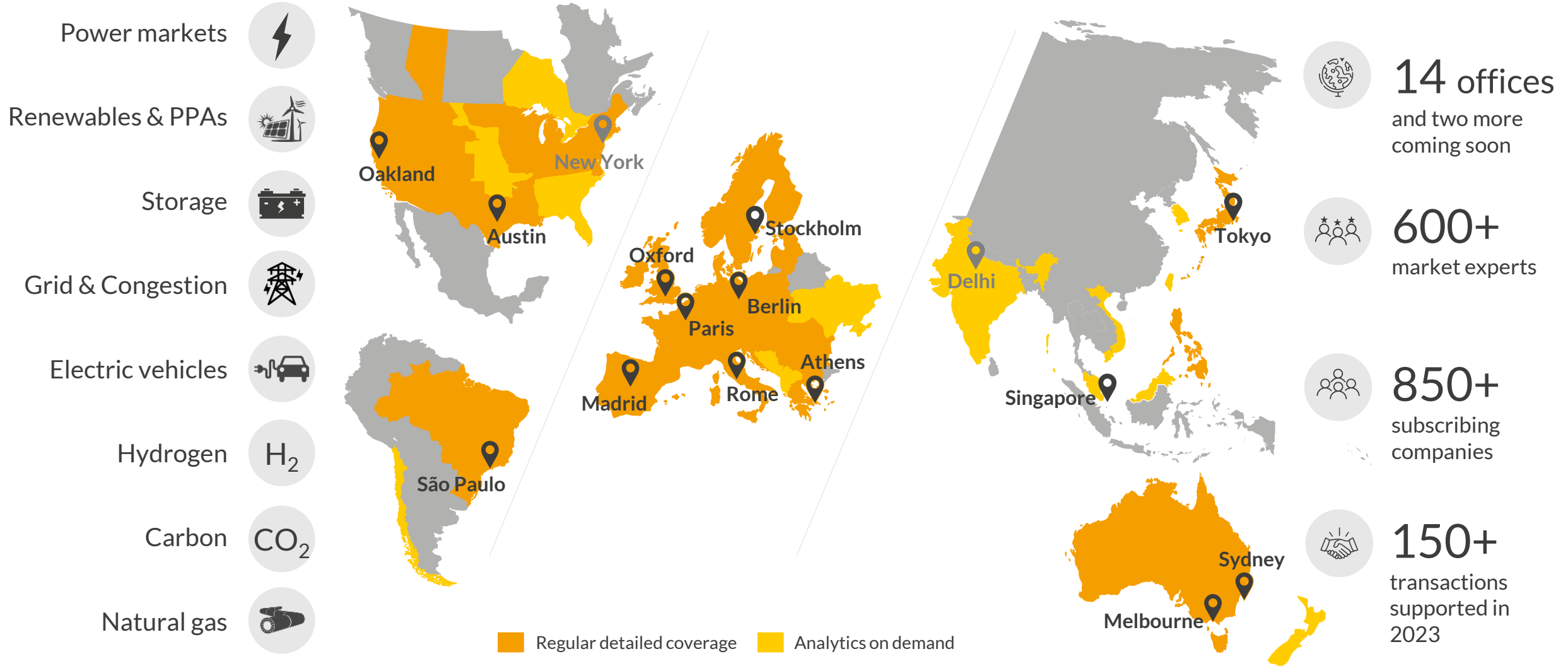


# Agenda

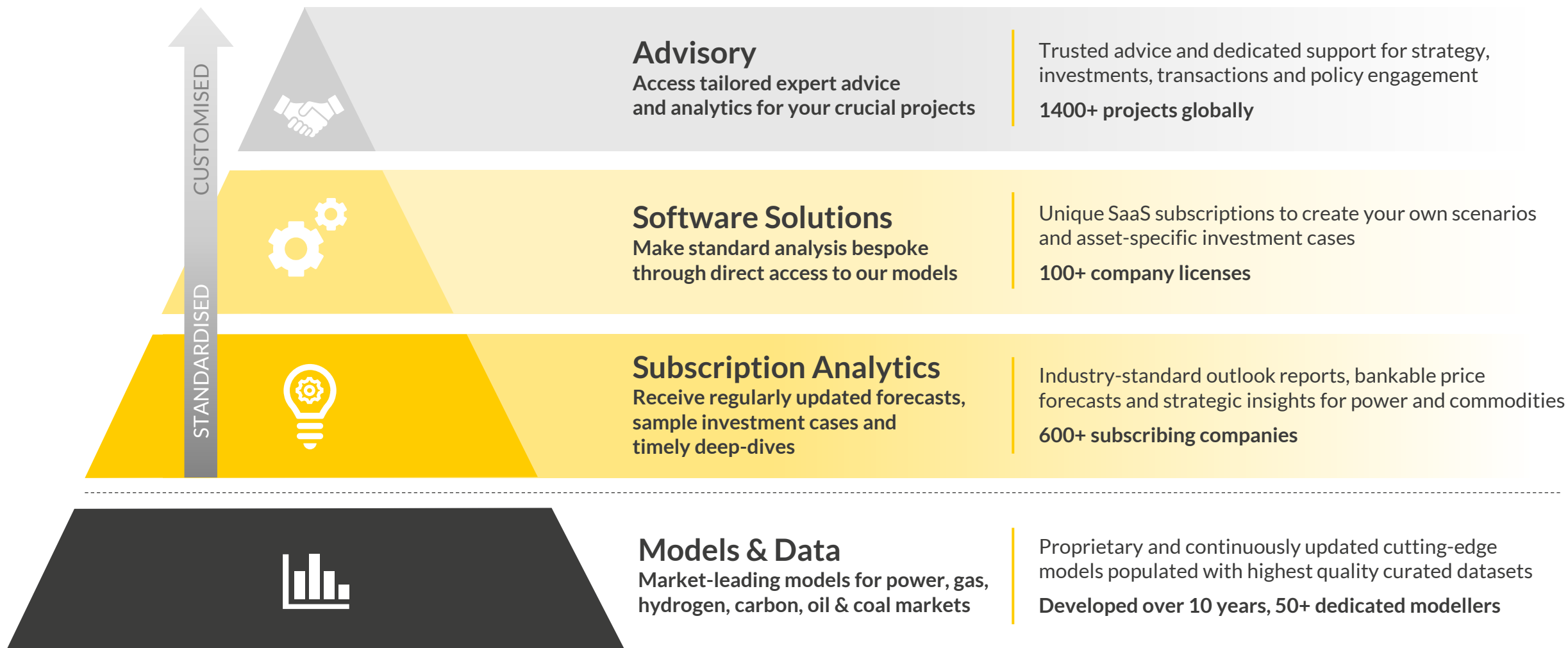
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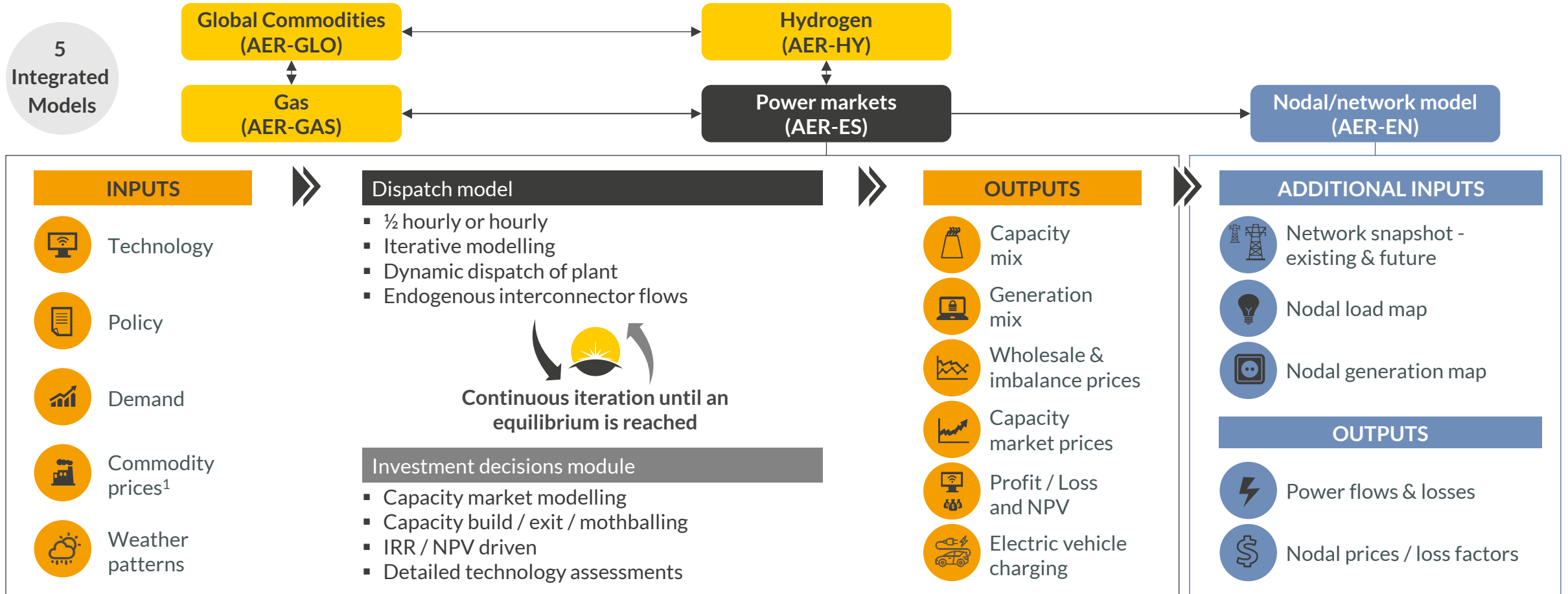
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# The Waste Emissions Charge will target methane reductions from most oil and gas facilities in the US until state-wide EPA regulations are implemented

Biden’s 2022 Inflation Reduction Act introduced the Methane Emissions Reduction Programme (MERP) to specifically target emissions from the oil and gas sector. During 2024, the EPA<sup>1</sup> has finalised new performance standards and emission guidelines under the Clean Air Act (1963) to further reduce methane emissions in this sector.

## Key aspects of the IRA’s Methane Emissions Reduction Programme:

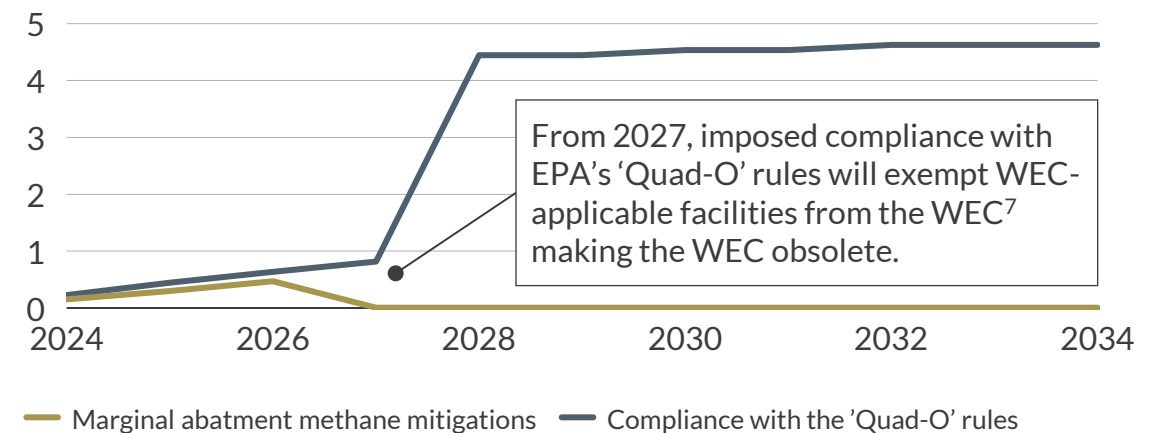
- Financial and technical assistance:** Over \$1 billion in financial and technical assistance provided by the EPA<sup>1</sup> and DoE<sup>2</sup> to help lessen pollution from oil and gas operations.
- EPA Waste Emissions Charge/Methane Fee:** The first charge, fee, or tax on GHG emissions imposed by the federal government. See next slide for further detail.
- Revisions to Subpart W of the GHGRP<sup>3</sup>:** To strengthen reporting requirements for petroleum and natural gas systems to increase transparency and accountability of methane emissions.

Methane regulations timeline	2024	2025	2026	2027	2028	2029
<b>IRA’s MERP</b>						
Waste Emissions Charge in effect	[Solid blue bar from 2024 to 2029]					
Revised Subpart W GHG reporting		[Solid green bar from 2025 to 2029]				
Financial assistance	[Solid grey bar from 2024 to 2025]					
Technical assistance	[Solid grey bar from 2024 to 2029]					
<b>EPA ‘Quad-O’ rules</b>						
NSPS OOOOb required compliance	[Solid blue bar from 2024 to 2029]					
EG OOOOc required compliance <sup>4</sup>				[Dashed blue bar from 2027 to 2029]		

## EPA ‘Quad-O’ rules introduced under Clean Air Act section 111(b) and (d):

- NSPS<sup>5</sup> OOOOb**  
Standards of performance for crude oil and natural gas facilities for which construction, modification or reconstruction commenced after Nov 21.
- EG<sup>6</sup> OOOOc**  
Emissions guidelines for states to follow to regulate and enforce performance standards, pursuant to the NSPS, that limit GHGs emissions from existing (pre-Nov 21) crude oil and natural gas facilities.

**Projected Methane emissions reductions according to the EPA as of Jan 2024**  
Millions of metric tonnes of methane

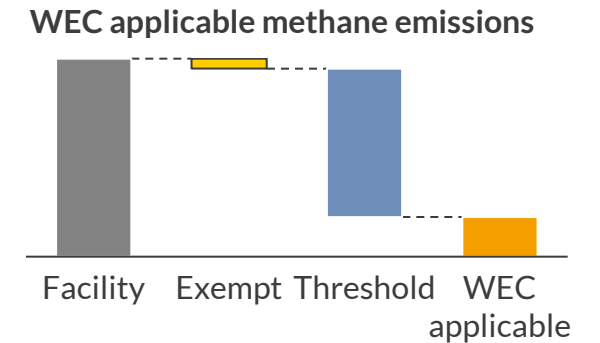


1) Environmental Protection Agency; 2) Department of Energy; 3) Green House Gas Reporting Programme; 4) 2027 is the earliest year for the regulatory compliance exemption to apply, although this could extend to 2029 if a federal implementation plan is required; 5)New Source Performance Standards; 6) Emissions Guidelines; 7) Waste Emissions Charge

# The natural gas distribution system avoids the WEC, while only a subset of emissions from facilities that are applicable will be subject to the WEC

## Waste Emissions Charge/Methane Fee

<p><b>What?</b></p>	<p>The WEC is a charge/fee on methane emissions from facilities within the oil and gas sector with the aim of reducing emissions from this sector. WEC per metric tonne of methane; 2024: \$900, 2025: \$1,200, 2026 and onwards: \$1,500. The WEC amounts are in nominal dollars.</p>
<p><b>Why?</b></p>	<p>To take advantage of near-term methane reduction opportunities whilst the EPA<sup>1</sup> and states work to finalise implementation of the final Clean Air Act ('Quad-O') rules.</p>
<p><b>Who?</b></p>	<p>The WEC applies to methane emissions above a facility-specific threshold from the subset of facilities listed below that are required to report their GHG emissions under Subpart W of the GHGRP<sup>2</sup>, and emit more than 25,000 metric tonnes of CO<sub>2</sub> equivalent per annum:</p> <ul style="list-style-type: none"> <li>▪ Onshore and offshore production of petroleum and natural gas</li> <li>▪ Onshore natural gas processing, transmission<sup>3</sup> and storage</li> <li>▪ LNG import and export equipment and storage</li> </ul> <p>For WEC-applicable facilities under common ownership or control, WEC applicable emissions can be netted<sup>4</sup>.</p>
<p><b>When?</b></p>	<p>WEC payments are due by March 31st of the year following the year the emissions were reported for, and the charges are applied to emissions beginning calendar year 2024.</p>
<p><b>Exemptions</b></p>	<ul style="list-style-type: none"> <li>▪ <b>Unreasonable Delay:</b> Exemption to methane emissions caused by unreasonable delay (proposed: 30-42 months) in environmental permitting of gathering or transmission infrastructure necessary for offtake of increased volume caused by methane emissions mitigation implementation</li> <li>▪ <b>Plugged Wells:</b> Exemption to methane emissions from wells that have been permanently shut-in and plugged in the previous year in accordance with all applicable closure requirements</li> <li>▪ <b>Regulatory Compliance:</b> Exemption to facilities that exceed WEC thresholds but are subject to and in compliance with methane emissions requirements promulgated pursuant to CAA sections 111(b) and (d) (i.e., new and existing facilities compliant with the 'Quad-O' rules), when and if certain statutorily specified conditions are met. Offshore production, LNG import-export equipment, LNG storage and the natural gas transmission pipeline are not eligible for the regulatory compliance exemption from the WEC under the 'Quad-O' rules.</li> </ul>



1) Environmental Protection Agency; 2) Greenhouse Gas Emissions Reporting Program; 3) The natural gas distribution system is not subject to the WEC; 4) WEC applicable emissions for each facility under common ownership or control are summed to calculate the net WEC emissions. Thus, facilities that emit below the WEC threshold can offset WEC emissions from facilities that emit above the WEC threshold if they are under common ownership or control.

Sources: Aurora Energy Research, Environmental Protection Agency



## Details and disclaimer

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