P2N0

NEWS AND VIEWS ON THE DRIVE TOWARDS NET-ZERO GHG EMISSIONS

Welcome to **Edition 34** of **P_2N_0** covering the drive to avoid, reduce and remove greenhouse gas (**GHG**) emissions to progress to net-zero GHG emissions (**NZE**).

P_2N_0 covers significant news items globally, reporting on them in short form, focusing on policy settings and legal and project developments and trends. This **Edition 34** covers news items arising during the period **July 1** to **July 31, 2025**.

P_2N_0 does not cover news items about climate change, M&A activity, or news items that are negative.

Access previous editions of **P_2N_0** at bakerbotts.com.

Content

News headlines from July 1 to July 31, 2025 (pages 1 to 7)	
News from Around the World	
1. Africa (**p. 7**)	2. Middle East, Central Asia, & South Asia (**p. 8** to **10**)
3. Americas (**p. 10** to **12**)	4. APAC (**p. 12** to **14**)
5. Europe and the UK (**p. 15 to 18**)	Helpful Publications and Data Bases (**p. 18** and **19**)
Current State of Play – ICJ Opinion (**p. 20 – 24**)	Baker Botts Team (**p. 25**)

HEADLINES FROM JULY 1 TO JULY 31, 2025

Current State of Play

As part of our new series of **Current State of Play**, this month we had intended to build on the **Current State of Play** in **Edition 33** – **Article 6 of the Paris Agreement**, by considering Carbon Capture and Storage[1] and Carbon Dioxide Removal[2] in the context of **Article 6** and carbon credits and carbon offsets generally. Both CCS and CDR are required to address climate change, together with the other means of decarbonization and achieving the energy transition. **Edition 35** of **P_2N_0** will consider these matters.

Our plans changed on **July 23, 2025**, when the **International Court of Justice** (**ICJ**) gave an **Advisory Opinion on Climate Change** in response to questions posed in resolution of the **UN General Assembly** on **March 29, 2023**.

The **Advisory Opinion** relates to the ***Obligations of States in respect of Climate Change***. The **Advisory Opinion** is, and its possible implications are, assessed in the **Current State of Play**.

---

[1] **Carbon Capture and Storage** involves the capture of CO_2 that would otherwise be emitted to the climate system and the storage of that CO_2 (sequestration) permanently and securely in a geological formation. This avoids the emission of CO_2 into the climate system. Carbon Capture and Use involves the capture of CO_2 that would otherwise be emitted to the climate system, and the use of it for an industrial use, including to produce products that do not store CO_2 permanently.

[2] **Carbon Dioxide Removal** involves the removal of CO_2 that is already in the climate system (from the climate system) and the storage of the CO_2 in a more stable form of carbon, which is not permanent. This removes CO_2 emissions already in the climate system.

Opening observations:

One of the reasons for changing the cadence of the publication of **P_2N_0** was to anticipate a quieter news cycle during the Northern Hemisphere summer, while fully expecting a heavier news month during **July** ahead of the **August** holiday season.

Over H1 of 2025, it has become apparent that a number of corporations and other organizations have chosen to withdraw from initiatives in which they once participated, and a new pragmatism has emerged. The two themes are connected:

For example:

- A number of:
  - corporations have withdrawn from participation in the **Science Based Targets Initiative** (**SBTI**), marking a lack of alignment between those corporations and the climate disclosure reporting assessment and reporting frameworks that are continuing to be developed; and
  - a number of banks have withdrawn from the **Net-Zero Banking Alliance**. (**NZBA**), which was established at COP-26 in Glasgow in 2021 as part of the **Glasgow Financial Alliance for Net Zero** (**GFANZ**). The key objective for the Alliance was aligning bank activities with achieving net-zero GHG emissions by 2050 (**Net-Zero 2050**).

    Earlier in 2025, the **NZBA** moved away from **Net-Zero 2050** being mandatory for membership of the NZBA.
- A number of member states of the **EU** have expressed concern about the EU **Corporate Sustainability Reporting Directive** (**CSRD**). One of the pieces of work that was not completed (and has been left for Michaelmas Term), ahead of the Northern Hemisphere summer break was to simplify the CSRD. The deadline for completion of work by the **European Reporting Advisory Group** (**EFRAG**) extended to **November 30, 2025**[3].

  On **August 1, 2025**, **EFRAG** published revised exposure drafts of the European Sustainability Reporting Standards (**ESRS**). At first glance, the revised exposure drafts provide simplification, meaningful simplification. **Edition 35** of P_2N_0 will provide a commentary.

Whatever one's perspective, some initiatives and mandated approaches appear to be "running out of road". This is no one's fault, disenfranchisement of key participants is however a concern. It is important that key participants are not disenfranchised further, because the participation of each of them is needed.

During **July 2025** the following matters caught the eye:

- **Electricity Mid-Year Update 2025**: On **July 30, 2025**, the **International Energy Agency** (**IEA**) published Electricity Mid-Year Update 2025. The publication is excellent.

[3] **EFRAG** has published State of Play 2025, detailing the results of its analysis of the first CSRD reports. The publication is well-worth a read, revealing themes that it is hoped are assessed further, and addressed.

The key findings from the **IEA** publication are: "Global electricity demand is expected to expand at one of the fastest sustained paces in over a decade despite ongoing economic pressures … with renewables, natural gas and nuclear all contributing to meet the additional demand";

- Demand for electrical energy is projected to increase by 3.3% in 2025 and 3.7% in 2026;
- Renewables are expected to become the world's largest source of electrical energy as early as 2025 and by 2026 at the latest.

"At the same time, nuclear power output is expected to reach record highs, driven by reactor restarts in Japan, robust output in the United States and France, and new additions, mostly in Asia. The steady increase in gas-fired power generation is set to continue displacing coal and oil in the power sector in many regions".

The **IEA** concludes that carbon dioxide emissions from the generation of electrical energy are forecast to plateau in 2025 and record a slight decline in 2026.

Also, the role of natural gas and LNG as an energy transition fuel, and more likely (with CCS) a long-term fuel would now seem to be re-established.

By way of a reminder: **Edition 33** of **P_2N_0** reported under (**GHG emissions arising along the LNG value chain**) that:

"On **June 20, 2025**, the **IEA** published Assessing emissions from LNG supply and abatement options. The publication is excellent.

The key facts and statistics are:

- The **IEA** estimates that extraction and production, processing, refining and treatment and transport of oil and natural gas (and LNG) give rise to around **5.2 Gt CO_2-e a year**, **3.5 Gt CO_2-e from oil**, and **1.6 Gt CO_2-e** from natural gas (and LNG), operations (i.e., from activities within the Scope 1 and Scope 2 emissions across the sectors).
- It is estimated that **350 million metric tonnes of CO_2-e GHG** emissions arise in the LNG supply chain (from extraction and production to the point of use). The **IEA** estimates that it would take USD 100 billion to reduce these GHG emission by 60%. The means of achieving this reduction are detailed in the **IEA** report.

It is estimated that **41.6 Gt** CO_2 emissions[4] arose in 2024 from fossil fuel use (**35.8 Gt**), cement production (**1.6 Gt**) and land use (**4.2 Gt**). A further **5.2 Gt CO2-e** emissions arising as Scope 1 and 2 emissions[5] of the oil and natural gas (and LNG) industries.

---

[4] 2024 Global Carbon Budget report by Global Carbon Project.

[5] **Greenhouse Gas Protocol** published by the **World Resources Institute** defines **Scope 1** and **Scope 2** emissions as follows: **Scope 1 Direct Emissions**, being emissions that arise from sources owned or controlled by the corporation or other organization whose GHG emissions are being measured and **Scope 2 Electrical Energy** indirect GHG emissions being emissions that arise generation of electrical energy used by the corporation or other organization. Scope 3 Other Indirect Emissions being emissions that arise as a consequence of the activities of the corporation or other organization.

The **IEA**[6] estimates that **37.8 Gt** of CO_2 emissions arose from the combustion of fuel (including CO_2 emissions from fuel combustion, industrial processes and fugitive and flaring emissions)."

On **July 24, 2025**, the **IEA** published its Coal Mid-Year update 2025. The publication is well-worth a read. The key findings of the publication are:

- Demand globally for coal is likely to remain unchanged during 2025 and 2026, with demand having reached an all-time high in 2024 of around 8.8 billion metric tonnes;
- During 2025 the IEA forecasts a slight increase in demand, followed by a marginal decline in 2026, bringing demand to just below 2024 levels.

- **International Renewable Energy Agency** (**IRENA**) publishes two key publications during July 2025:
  - **Renewable Power Generation Costs in 2024**: On **July 22, 2025**, IRENA published Renewable Power Generation Costs in 2024. The publication is well-worth a read.

    The key findings from the **IRENA** publication are:

    - Photovoltaic solar electrical energy capacity is on average 41% less expensive that the lowest cost fossil-fuel alternative (at USD 0.043 / KWh) and onshore wind capacity is on average 53% less expensive (at USD 0.034 / kWh);
    - The installation of an additional 582 GWs of renewable capacity in 2024 contributed to the lower cost of electrical energy, and contributed to a reduction in the GHG emissions arising by unit of electrical energy generated; and
    - 91% of renewable electrical energy installed during 2024 had a lower unit cost that fossil-fuel alternatives.
  - Renewable Energy Statistics 2025: On **July 10, 2025**, **IRENA** published Renewable Energy Statistics 2025. As with **Renewable Power Generation Costs in 2024**, the publication is well-worth a read.

    The key findings from the **IRENA** publication are:

    - While there was 15% growth in the installation of renewable energy capacity, there remains a "growth gap" with Asia (in effect China) accounting for 71% of new renewable energy generation capacity, with the 12.3% of growth in Europe and 7.8% in the US, whereas Africa, Eurasia, Central America and the Caribbean together accounting for 2.8% of growth;

      "If the same annual growth rate continues, the world will only reach 10.3 TW of renewables capacity [of the 11 GW], missing the target by 0.9 TW. Achieving the target by 2030 would require renewable capacity to expand even faster at 16.6% annually in less than the remaining five years".
    - The rate of growth is not sufficient compared to the tripling of renewable electrical energy capacity by 2030 made at COP-28.

[6] From the **IEA Global Energy Review 2025, CO_2 Emissions**.

> "As the custodian Agency for tracking the global goal to triple installed renewable capacity by 2030, IRENA remains committed to reviewing progress and identifying gaps towards the target on an annual basis. Although the 582 GW of renewable capacity added in 2024 represented a record annual increase, it still falls short of the pace required to reach the global tripling target of 11.2 TW by 2030."

As noted previously noted, what needs to be done is known, and the publication indicates that progress is being made at close to the required rate.

- **EU targets 90% reduction in GHG emissions by 2040**: On **July 2, 2025**, the **European Commission** (**EC**) published the proposed amendment to the **EU Climate Law**: Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) 2021/1119 establishing the framework for achieving climate neutrality. To accompany the proposed amendment, the EC published Delivering on the Clean Industrial – Communication[7]. The proposed amendment provides for a 90% reduction in net-GHG emissions by 2040 compared to 1990 (**EURT**). The proposed amendment will be considered by the **European Parliament** and the **Council of the European Union**.

  Is the target overburdening? While the EU has agreed on this ambitious target, a number of countries have expressed concern about the cost of the achievement of the target, including **Czechia**, **Italy** and **Poland**, and French President, Emmanuel Macron, questioning whether the EU is **overburdening** itself.

  Carbon credits at arms'-length: While there was support for the use of carbon credits to reduce the cost of decarbonisation, in the final analysis, the **EU** is allowing for a possible limited use of high-quality carbon credits to discharge liability arising under the **EU ETS** (commencing in 2026). This approach is consistent with thinking around the world: the **EU ETS** is intended to place a price on carbon that provides an incentive for corporations and other organisations to adopt lower, low and no carbon technologies so as decarbonize their activities (to achieve actual avoidance, reduction and removal) of GHG emissions, with carbon credits to be used to offset activities that cannot be decarbonised.

  A number of folks have argued that the possible limited use of high-quality carbon credits is a "missed opportunity". If a market for high-quality carbon credits arises under **Article 6** of the Paris Agreement, one can see the use of those carbon credits, but only after decarbonisation has been exhausted.

  Devil is in the detail: Communication from the EU about how it intends the EURT has drawn a fair amount of comment. One of the communications states:

  > "All zero and low carbon energy solutions (including renewables, nuclear, energy efficiency, storage, CCS and CCU, carbon removals, geothermal and hydro-energy, and all other current and future net-zero energy technologies) are necessary to decarbonise the energy system by 2040".

  A number of folks have commented that this statement is notable because it does not refer to the use of renewable hydrogen expressly, and it is limited to the decarbonisation of the energy system. The fact that the statement does not reference expressly renewable hydrogen should not be of concern

[7] In addition, among other things, the EC published: Commission Recommendation on tax incentives to support the Clean Industrial Deal in light of the Clean Industrial Deal State aid Framework; and Commission Recommendation on Innovative Renewables, Grid Infrastructure, and Future-Proof Network Charges.

given the policy settings in place to allow the development of the use of renewable hydrogen (subject always to the economics).

The fact that the statement relates to decarbonization of the energy system alone while not of a concern of itself, tends to bring into focus the need for policy settings to respond to the GHG emissions arising from the agriculture, forestry and land use (**AFOLU**) sector. Rather than an increase in the avoidance, reduction and removal of GHG emissions across **AFOLU** sector through increase sequestration capacity across the EU, the sequestration capacity of the EU is less than it was in 2014[8].

On **July 2, 2025**, **Finland** supported the EURT. At the same time, Finland noted that it was important that the EC take into account the need to implement policy settings to avoid, reduce and remove GHG emissions arising across the **AFOLU** sector, and to restore and to increase the sequestration capacity across the EU. In addition, Finland indicates that it will continue to explore the use of carbon credits. Please take time to read the statement from Finland found at https://ym.fi, under Finland supports Commission's proposal concerned 90 per emission reduction target by 2040. What is needed is known.

On **July 3, 2025**, it was reported widely that during calendar year 2024, 47% of electrical energy usage across the EU was generated form a renewable source.

- **Norway in lockstep**: While Norway is not a member-state of the EU, it is aligned with the EU and is part of the **European Economic Area**. Norway has announced its new nationally determined contribution (**NDC**) for the purposes of **Article 4** of the Paris Agreement: to reduce its GHG emissions by 2035 at least 70 – 75% compared to 1990. Achievement of the revised NDC is part of the law of Norway, under the **Climate Change Act**.

  The **NDC for Norway for 2035** states:

  > "Norway plans to fulfil the NDC by 2035 through domestic measures and in cooperation with the European Union in accordance with Article 6 of the Paris Agreement. If deemed necessary, achievement of the target can be supported by Internationally Transferred Mitigation Outcomes (ITMOs) acquired outside the European Economic Area (EEA). The European Union's NDC and legislation for the period after 2030 will have implications for the implementation of Norway's NDC for 2035".

- **Australia, India, Japan and US align around CM_3**: On **July 2, 2025**, it was reported widely that the US, Japan, India and Australia (the **Quad**) had agreed to work together to secure supply of critical materials, metals and minerals (**CM_3**). In a joint communique following meetings in Washington, DC, the Quad has established the Quad Critical Minerals Initiative.

  On **July 24, 2025**, **China** and the **EU** held a Summit in Beijing, China. Climate change was on the agenda. In relation to Climate Change, a joint press statement was made. Ahead of the Summit, trade talks

[8] While the reasons for this reduction in sequestration capacity is well-known (forests continue to mature, and as a result absorb less CO_2, the rate of harvesting has increased, and the impact of climate change with loss of forested areas, including as a result of increased frequency and severity of droughts and floods, and forest fires). It is to be hoped that the AFOLU sector receives reinvigorated policy settings.

were held, including on critical metals and minerals. It is understood that a good deal more discussion is likely. On **July 28, 2025**, the **EU** and the **US** announced that they would establish a critical metals and minerals alliance.

On **July 4, 2025**, **Reuters**, Andy Home (at https://www.reuters, under Metals smelting is the West's next critical minerals crisis. The article is well-worth a read, not least because it continues to complete the jigsaw puzzle around CM_3. Also, it illustrates the need for shared mining and smelting to achieve affordable and secure availability of CM_3.

- **IRENA holiday reading**: During **July 2025**, the good folk at **IRENA** published the following The Potential for Green Hydrogen and Related Commodities Trade. The publication is well-worth a read.

Africa

- **Nigeria plans for 4 million metric tonnes of green ammonia production**: On **July 19, 2025 Punch** (at https://punchng.com, under **FG unveils plan to produce four million tonnes of ammonia**) reported that the Federal Government of Nigeria plans to produce **4 million metric tonnes** of green ammonia by 2060 as part of its plans to transition to a lower GHG emission economy.
- **Universal Access to Clean Energy Cooking in Africa**: On **July 18, 2025**, the **IEA** published Universal Access to Clean Energy Cooking in Africa. The publication continues the championing by the **IEA** of clean cooking. The publication notes that one billion people in Africa (or four in five families) lack clean cooking solutions. The purpose of the publication is to provide a roadmap to address this, and to overcome the consequences of it.

  The publication states:

  > "African countries can close one of the continent's most harmful energy and development gaps in just 15 years if they replicate the progress seen in other developing economies, showing how universal access to clean cooking could be achieved across sub-Saharan Africa by 2040."

  The publication tracks the outcomes of the Summit on Clean Cooking in Africa (held in May 2024 in Paris) which mobilised over USD 2.2 billion in public and private sector commitments. The publication states that more than USD 470 million of these commitments have been disbursed.
- **Traceability of critical raw materials, with a focus on Africa:** During the first half of **July 2025,** the European Parliament published Traceability of critical raw materials, with a focus on Africa. The publication is a study of the technical and logistical issues that arise from tracing the source of critical raw materials. The publication is well worth a read.

Middle East, Central Asia, and South Asia

- **KSA to develop Neom 2.0**: On **July 28, 2025**, **hydrogeninsight** (at https://www.hydrogeninsight.com, under Saudi Arabia's second green hydrogen and ammonia plant will be nearly twice the size of 2.2 GW Neom project) reported that **Técnicas Reunidas** and **Sinopec** have been engaged to design the Yanbu hydrogen production hub.
- **KSA developing renewable energy and hydrogen exports**: On **July 21, 2025**, it was reported widely that the **KSA** had signed a number of agreements to establish the India-Middle East – Europe Economic Corridor.

  As reported, the agreements include a Joint Development Agreement between ACWA Power and EnBW providing a framework for the development of a **hydrogen production hub in Yanbu**, on the Red Sea Coast. In addition, ACWA Power signed a Memorandum of Understanding with Edison, TotalEnergies, Zhero Europe and EnBW under which there will be an assessment of the feasibility of exporting renewable energy from KSA to Europe.
- **KSA awards concessions for 15 GW of photovoltaic and wind projects**: On **July 13, 2025**, it was reported widely that KSA had signed agreements for the development of seven new renewable energy projects. The agreements were signed under the **National Renewable Energy Program**, administered by the **Ministry of Energy**.

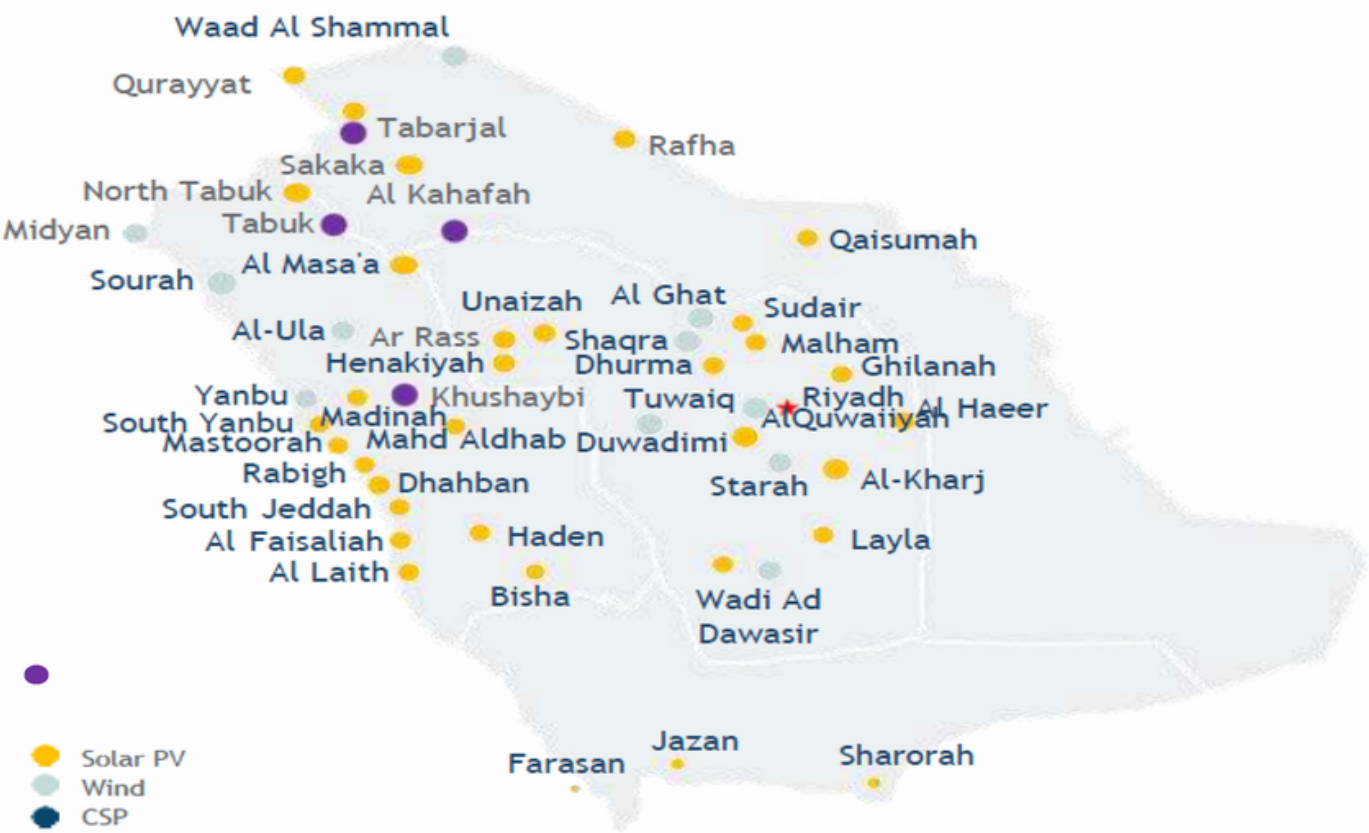
  The agreements signed by **ACWA Power** in consortium with Badeel (owned by PIF) and **Aramco Power** (owned by Saudi Aramco).

  As reported, the seven projects, with a total capacity of 15,000 MW, will cost USD 8.3 billion to develop. They are:

  - five solar energy projects:
    - Afif 1 – 2,000 MW;
    - Afif 2 – 2,000 MW;
    - Humaij – 3,000 MW;
    - Bisha – 3,000 MW: and
    - Khulis – 2,000 MW; and
  - two wind energy projects:
    - Starah – 2,000 MW; and
    - Shaqra – 1,000 MW.

This continues the Ministry of Energy's investment under the **National Renewable Energy Program**. To the end of 2024, 10 renewable energy projects had been developed, with 6,150 MW of photovoltaic solar and 400 MW of wind.

The map below sets out the locations of all renewable energy installed across KSA, categorised into solar photovoltaic, wind and concentrated solar power (CSP).



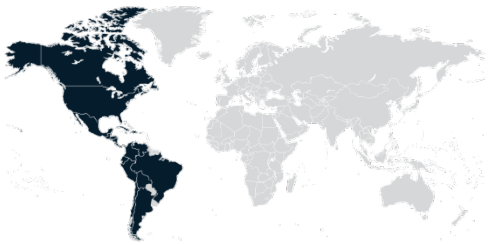
- **Green Hydrogen Certification Scheme** (**GHCI**) **in India**: During the first week of **July 2025**, the Indian **Ministry of New and Renewable Energy** (**MNRE**) published the **GHCI**. The **GHCI** provides a clear and transparent basis to use the categorization and description of green hydrogen.

  The key characteristics and treatment are as follows:

GHCI	
To be green hydrogen, must be produced by electrolysis or conversion from biomass	CO2-emissions not to exceed for each 2 kg of H_2
Certification must be undertaken by approved third-party	H_2 will be batched with a Guarantee of Origin

Also, during **July 2025**, the results of the first auction for **75,000 metric tonnes** a year of **Green Ammonia** (under the **National Green Hydrogen Mission** and undertaken by the **Solar Energy Corporation of India Limited** (**SECI**)) were announced. **SECI** is working with the **MNRE** and the **Department of Fertilizers**. As announced by **SECI**, this is the first of a number of auctions to match supply with demand. In early August 2025, the result of the second of the auctions was announced. **Edition 35** of P_2N_0 will cover the outcomes of each auction.

- **Tracking Renewables Progress in the KSA**: With renewable projects progressing rapidly in Saudi Arabia, the Kin Abdullah Petroleum Studies and Research Center has developed a KSA Renewables Tracker which shows solar and wind energy projects under development or tender and operation stages. Renewable Vision has also developed a visual representation of renewable energy projects in Saudi Arabia, which can be accessed here.
- **Tracking Data Centers in the KSA**: Along with renewable projects, data center projects are also progressing rapidly in Saudi Arabia. **Renewable Vision** has developed a Saudi Data Center Tracker that details each data center project in Saudi Arabia. Currently, it shows 24 live sites (~620 MW), 11 builds underway (~380 MW) and a further 13 in the pipeline (~600 MW), with Riyadh alone set to capture 55 % of near-term capacity. If all announced projects are developed, Saudi data center demand would be around 1.6 GW by 2030.



Americas

- **Meta photovoltaic solar power purchase agreement signed**: On **July 23, 2025**, **esgtoday** (at https://www.esgtoday.com, under Meta Buys 100% of Renewable Energy from New $900 Million Solar Project to Power US Data Centers) reported that Meta had entered into a power purchase agreement with Enbridge under which Enbridge is to supply 100% of the renewable electrical energy generated from a new 600 MW photovoltaic solar farm in the US State of Texas. As reported, the renewable electrical energy will cool and power data center operations.
- **Google hydropower purchase agreement signed**: On **July 16, 2025**, **Google** and **Brookfield Asset Management** signed a **20-year power purchase agreement** under which **Google** is to pay for electrical energy generated at two hydropower-facilities in the **US State of Pennsylvania**. As reported, the cost of the electrical energy to be supplied by **Brookfield** and purchased by **Google** will be **USD 3 billion**.
- **CVX considers Blue H_2 and NH_3 plant**: On **July 16, 2025**, **energyintel** (at https://www.energyintel.com, under Chevron Eyes $5B Blue Hydrogen, Ammonia Plant on US Coast) reported that CVX was considering developing a USD 5 billion blue hydrogen and ammonia production plant in Houston, Texas.
- **CF Industries commences operations**: On **July 14, 2025**, the good folk at hydrogeninsight (at https://www.hydrogeninsight.com, under CF Industries starts CO_2 capture for retrofitted blue hydrogen-based ammonia plant – with a controversial storage option) reported that **CF Industries** had announced that it had commenced operations at its CO_2 dehydration and compression facility at its Donaldson fertiliser complex in the US State of Louisiana. While operation has commenced, final permits remain to be obtained to allow the storage of the CO_2 captured at the **Rose carbon storage** site in the US State of Texas.

- **World Bank provides initial financing for Ceará hydrogen hub:** On **July 8, 2025**, it was reported widely that the **World Bank** had agreed to provide **USD 134 million** in funding to the **Pecém Industrial and Port Complex Company** to allow progress to develop facilities to support the **Ceará hydrogen hub in Brazil**.
- **DOE Grid Lock**. On **July 7, 2025**, the **US Department of Energy** (**DOE**) published its Report on Evaluating US Grid Reliability and Security. The key points from the Report are that:

  1. Without change, most regions of the US will encounter reliability risks within the next five years, and will not be able to transmit increased levels of electrical energy to match demand arising from AI, data centers, industrial and manufacturing activities;
  2. Grid augmentation and expansion must (at least) match AI innovation, and this will require radical change to unleash the transformative potential of innovation; and
  3. Grid augmentation and expansion must be aligned with the change in the electrical energy generation mix, and the growth in electrical energy installed generation capacity.

  The Report is timely and shot through with clear sighted practicality.
- **FERC first third report**: During the first part of **July 2025**, the **Federal Energy Regulatory Commission** (**FERC**) reported that during the four months to the end of April 2025, 96% of new electrical energy generating capacity installed in the US was photovoltaic solar and wind. For further detail, see Energy Infrastructure Update.
- **45Q Tax Credit for CCS**: On **July 4, 2025**, the final form of modifications to the **45Q tax credit** passed into law.

  In summary the position is now as follows:

45Q Tax Credit		
Credit value (in USD) per ton	**85** from point source to geological storage (**GS**)	**180** DAC to GS
	85 from point source utilization with oil enhanced recovery (**EOR**) to GS	**180** DAC with EOR to GS
Transferability	Permitted	
Inflation Adjustment	From 2027 off base price index from 2025	
Foreign Energy of Concern Restriction	Restrictions exist, including in respect of any Specified Foreign Entity	

  The key change from the Inflation Reduction Act is to provide for a 45Q Tax Credit for CO_2 used to achieve EOR. The extension of the 45Q Tax Credit for CO_2 may result in investment in EOR.
- **Atomic acceleration:** During the first week of **July 2025**, the US **Nuclear Regulatory Commission** (**NRC**) is reported to have announced that it will accelerate the review of the licence application from **TerraPower** to construct its Natrium advanced reactor demonstration nuclear reactor: the demonstration nuclear reactor will result in the development of a 345 MW sodium cooled reactor in **Kemmerer, Wyoming**.

  TerraPower (backed by Mr Bill Gates) stated:

  > "The Natrium project is the only advanced nuclear [development] to begin construction on a commercial scale in the US. The plant design features a 345 MW sodium-cooled fast reactor with patented molten salt-based energy storage system".

- **xAI shipping in power:** On **July 3, 2025**, the good folk at Tom's Hardware (at https://www.tomshardware.com) reported that Elon Musk had confirmed the intention to buy a power plant from overseas, to ship it to the US, with the power plant to provide electrical energy for 1 million GPUs with up to 2 GW of electrical energy generation capacity.
- **GHG emissions on the increase:**
  - **Google GHG emissions continuing to increase**: On **July 2, 2025, The Guardian** (at https://www.theguardian.com under Google undercounts its carbon emissions, report finds) that **Google** had reported a 51% increase in **GHG** emissions between 2019 and 2024. This increase is a key indicator of the increased use of electrical energy by **Google**, including the increased use of AI.
  - **Microsoft sees its carbon emissions soar on a 168% glut in AI energy demand**: On **July 9, 2025, Window Central** (at www.windowscentral.com, under Microsoft sees its carbon emissions soar on a 168% glut in AI energy demand "we recognise that we must also bring more carbon-free electricity onto the grids") reported that "Microsoft had seen a 23.4% [increase] in carbon emissions owing to AI, atop a surging 168% increase in energy demand".

  In the context of increased GHG emissions, **Google** and **Microsoft** have continued to enter into long term off-take agreements for renewable electrical energy and avoidance and removal of CO_2 from the climate system.

APAC

- **Day one for DayOne**: On **July 25, 2025**, the good folk at **The Business Times** (at https://www.businesstimes.com, under DayOne breaks ground on first Singapore data centre to trial hydrogen-based power generation) reported the **DayOne Data Centers Singapore** is to develop a **SGD 350 million** data centre at the Jurong East Data Centre Cluster. As reported, **DayOne** has entered into a renewable power purchase agreement with **Sembcorp Power** and is "to pilot on-site hydrogen-based power generation[9]".

  The **DayOne** data centre is one of four data centres selected by the **Economic Development Board** and the **Infocomm Media Development Authority**. As reported, **AirTrunk** and **ByteDance** (working together) and **Equinix** and **Microsoft** were the other three developers selected.
- **Construction of hydroelectric project begins along the Yarlung Tsangpo River**: On **July 19, 2025**, it was announced by **Chinese Premier Li Qiang** that construction had begun to develop the **USD 167 billion** hydroelectric project in Southwest China along the lower reaches of the **Yarlung Tsangpo River**. **China**

[9] The National Hydrogen Strategy for Singapore stated that hydrogen could supply half of the energy needs of Singapore by 2050.

Yajiang Group Co is to undertake construction. As reported, the hydroelectric project will involve five power stations along the **Yarlung Tsangpo River**.

- **Australia progressing to 50% renewables across its national grid**: On **July 14, 2025**, it was reported widely that at the end of the previous week, demand across the grid had been matched as to 42.2%. As new renewable energy capacity and BESS comes online, Australia is progressing to 50% renewable dispatch in the not-too-distant future.
- **Shanghai Electric Jilin project producing**: On **July 4, 2025**, **hydrogeninsight** (at https://www.hydrogeninsight.com, under Shanghai Electric makes first green hydrogen-derived methanol from initial phase of multi-hundred-MW project report) reported that Shanghai Electric had produced the first barrels of green methanol from its **Taonan green hydrogen to methanol plant** in Jilin.
- **IHI and Royal Vopak in the frame**: On **July 11, 2025**, it was reported widely that **IHI Corporation** and **Royal Vopak** had signed a joint development agreement to provide a framework for the development of a proposed joint venture to develop a green ammonia import terminal in Japan.
- **Envision Energy good to go**: On **July 10, 2025**, it was reported widely that **Envision Energy** had commissioned the first phase of its 500 MW (320,000 metric tonnes a year) green hydrogen and ammonia production facility in **Chifeng, China**. Once completed in full, the **Chifeng production facility** will be sized at **2.5 GW**.
- **Pump-storage in The Philippines**: During the first week of **July 2025**, it was reported widely that **The Thunder Consortium** (comprising Aboitiz Renewables Inc., Electric Power Development Co., and Sumitomo Corporation) was the successful bidder for **Caliraya-Botocan-Kalayaan** (**CBK**) Hydroelectric Power Plants. As reported, the CBK plants have a **25-year** concession with the **Department of Energy** structured as a **BROT** (build-restore-operate-transfer).
- **China ESS sector running hot:**
  - **VRFB construction completed**: On **July 4, 2025**, **pv-magazine** (at www.pv-magazine.com under World's largest vanadium flow battery goes online in China) reported that the **China Huaneng Group vanadium redox flow battery** (**VRFB**) had been completed. The source of renewable electrical energy for the **VRFB** is a **1 GW photovoltaic solar farm**. The **VRFB** is reported to have capacity aligned with the renewable energy capacity at **200 MW / 1,000 MWh**.
  - **PowerChina construction commences**: During the first week of **July 2025**, it was reported widely that **PowerChina** had commenced the construction of its **USD 880 million 1 GW / 6 GWh** electrochemical energy storage project in **Ulanqab, Mongolia**. As reported, the project will comprise up to **1,200 units**, each of **5 MWh lithium phosphate energy storage capacity**. More detail on the project can be found at https://www.energy-storage.news under PowerChina begins construction of "world's largest generation-side" battery storage project.
- **Orica enters ARENA**: On **July 4, 2025**, it was reported widely the Federal Australian Government, through the **Australian Renewable Energy Agency** (**ARENA**), has agreed to provide **USD 240 million** of grant funding to **Orica** to allow the development of the **Hunter Valley Hydrogen Hub**.

As reported (and as long understood), the funding will allow **Orica** to decarbonise its **Kooragang Island** (in the Port of Newcastle) ammonia production facility to allow the production of low-carbon ammonia and low-carbon ammonia nitrate.

- **Indonesia and KSA align around initiatives valued at USD 27 billion**: On **July 3, 2025**, **The Times of India** (at https://timesofindia.indiatimes.com, under Saudi Arabia and Indonesia sign $27 billion in strategic agreements across energy, defence and technology) reported that "Energy collaboration was a central focus of the agreements, with both nations committing to deepen joint work on crude oil supply and petrochemical development, electricity generation and renewable energy and hydrogen production and energy storage innovations".
- **Bonaparte Basin taking shape**: On **July 3, 2025**, the **Federal Australian Government** awarded major project status to the development of the **Bonaparte Basin CCS projec**t (an INPEX, TotalEnergies and Woodside project). Major project status will streamline the approvals process, and as such, it is hoped, to allow the development of the project at a faster pace.
- **Japan sizes its GTS-ETS Carbon Market**: On **July 2, 2025**, it was reported widely that the **Ministry of Economy, Trade and Industry** (**METI**) has convened a meeting of experts to discuss and to develop the detailed design for the **GTS-ETS**.

  The **GTS-ETS** is scheduled to commence operation at the start of Q2 of 2026.

  The key size and shape indicators so far, are:

  - The **GTS-ETS** will be compulsory / mandatory for between 300 and 400 corporations and other organizations based on the mass of their Scope 1 emissions, and will cover around 60% of GHG emissions arising from activities in Japan; and
  - The **GTS-ETS** will allow the use of carbon credits (**J Credits** and **JCM**) to discharge liability, subject to a 10% cap.

  As might be expected, the measurement and reporting and verification process will be key, and the obligations will become stricter over time. To avoid cost duplication, corporations will be able to report on a group basis.

  As reported, there will be further consultation during **August 2025**. It is understood that discussions about lower and upper price limits under the **GTS-ETS** will be the focus of that further consultation. The price of carbon arising under the **GTS-ETS** will be key to its impact on transfer to the use of lower, low and no carbon technologies so as to achieve the intent of the use of the **GTS-ETS** as a policy setting.
- **Cambodia and Singapore continue to align**: On **July 2, 2025**, it was reported widely that **Cambodia** and **Singapore** continue to align thinking to allow the import of green electrical energy from **Cambodia** into **Singapore**, as part of the broader framework for an **Asian Energy Grid**.

EUROPE

- **EC publishes draft T&Cs for EHB Third Auction**: On **July 30, 2025**, the **EC** published Draft Terms and Conditions for Innovation Fund IF25 Hydrogen Auction. The EC is seeking feedback on the Draft Terms and Conditions by **September 14, 2025**. The highlights are that the maximum period of support by payment of a premium will be **10-years**, and the maximum amount of the premium will be **€4 per kg**.
- **UK Contracts for Difference (CfDs) start making sense**: On **July 23, 2025**, the **UK Government (Department for Energy Security and Net Zero)** published the Contracts for Difference (CfD) Round 7: Contract Allocation Framework. For those active in the sector, the publication provides a clear sense check on the current thinking of the UK Government. Critically, the UK Government has recognized the need for long-term CfD, from **15-years** to **20-years**. In addition, the UK Government increased the **Administrative Strike Price (ASP)**, with offshore wind increasing to **£113 MWh** for fixed-bottom and **£271 MWh** for floating wind, and for onshore wind **£92**. The ASP for photovoltaic solar decreased to **£75 MWh**.
- **Trudvang CCS progressing**: On **July 16, 2025**, **Var Energi**, and licence partners **Storegga** and **INPEX Idemitsu Norge**, announced that their **Trudvang CO_2 storage project** had passed the feasibility gate as part of the licensing process. As announced, the **Trudvang CO_2 storage project** has the capacity to store up to **10 million metric tonnes** of CO_2 a year, with total capacity of over **300 million metric tonnes**.

  As announced, the **Trudvang reservoir** is within the **Ulsira formation** in the Norwegian sector of the North Sea.
- **IEA and IRENA in Europe:**
  - **Regional Energy Transition Outlook European Union:** On **June 23, 2025**, **IRENA** published Regional Energy Transition Outlook European Union**.** The publication is well-worth a read, providing an update on themes across the EU.
  - **Lithuania 2025 Energy Policy Review:** On **July** 7, **2025**, **IEA** published Lithuania 2025 Energy Policy Review. The publication is well-worth a read, providing a summary of the policy settings in Lithuania and what is needed to implement those policy settings
- **German BESS hits 22.1 GWh**: On **July 18, 2025**, the good folk at **pv-magazine** (at https://www.pv-magazine.com, under Germany battery storage hits 22.1 GW in H1) reported that by the end of June 2025, around **2 million BESSs** had been installed across Germany. As reported, these BESS installations give rise to a usable **22.1 GWh capacity**.
- **EC Budgets for hydrogen infrastructure:** On **July 17, 2025**, it was reported widely that the proposed 2028 to 2034 EU budget would provide funding of up to **€29.9** billion under its **Connecting Europe Facility**. This funding would be made available to fund hydrogen refueling stations and bunkering hubs to supply ammonia and methanol as shipping fuels.

- **Microsoft continues its purchase of benefits of carbon avoidance:**
  - **4.9 million metric tonnes of durable carbon dioxide removal**: On **July 16, 2025**, it was reported widely that **Vaulted Deep** had agreed a long term off-take agreement with **Microsoft** to store organic waste underground. As reported, **Vaulted Deep** injects underground wet organic waste underground, being waste that would have been combusted or landfilled.
  - **3 million metric tonnes GHG CCS deal**: On **July 9, 2025**, it was reported widely that **Copenhagen Infrastructure Partners** (**CIP**) and **Vestforbrænding** had agreed a long term off-take agreement with **Microsoft** under which **Microsoft** will get the benefit of the carbon capture and storage undertaken at the Glostrup waste to energy facility, with point of capture carbon capture to be installed at the existing waste to energy facility. The benefit of the carbon capture and storage will come from the **Carbon Removal Units** representing the biogenic portion of the waste treated at the waste to energy facility.

    Microsoft ensures that all its **Carbon Removal Units** satisfy the following requirements:

    - net negativity – demonstrating evidence of removing atmospheric carbon dioxide on a lifecycle basis;
    - scientific verification – independently reviewed by Microsoft's third-party scientific advisors and/or verified by Microsoft's standards; and
    - social and environmental benefits – avoiding and minimizing environmental and social harm, while supporting social equity and sustainability.
- **Hydrogen pipeline tariff set**: On **July 14, 2025**, it was reported widely that the **German Federal Network Agency** had set a uniform tariff for access to the hydrogen pipeline network being developed in Germany at **€25 per kilowatt hour of energy per hour (€25/kWh/h/a)**. This provides those considering the transition to use of hydrogen with a basis to build their financial models.
- **As the sun shines, solar electrical energy becomes largest source of electrical energy**: On **July 10, 2025**, the good folk at **Ember Energy** (at https://ember-energy.org, under Solar is EU's biggest power source for the first time ever) reported that during June 2025, electrical energy from photovoltaic solar generating capacity became the largest source of electrical energy dispatched across Europe at 22.1%, ahead of nuclear at 21.8%, wind at 15.8%, gas at 14.4%, and hydroelectric at 12.8%, and coal at 6.1%.
- **EC Communication on Nature Credits**: On **July 7, 2025**, the **EC** published its Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Roadmap towards Nature Credits.

  The concept being developed is to place a value on the protection and the restoration of the environment, through the use of Nature Credits, with that value providing a price point for activities that achieve protection and restoration outcomes. While Nature Credits are distinct from Carbon Credits, certain activities may give rise to both.
- **Air Liquide takes FID**: During **July 2025**, **Air Liquide** took a positive final investment decision to develop its **200 MW green hydrogen production facility** in **Rotterdam**, **The Netherlands**. As reported, **TotalEnergies** will provide renewable electrical energy from its **OranjeWind offshore wind field** to power the Air Liquide facility, and the Air Liquide facility will produce green hydrogen to displace the use of

grey hydrogen at the TotalEnergies refinery in Rotterdam. This may be regarded as a blueprint for the matching of supply and demand for green hydrogen.

- **Assessment of GHG emission savings from low-carbon fuels**: On **July 8, 2025**, the **European Commission** (**EC**) published Commission Delegated Regulation supplementing Directive (EU) 2024/1788 of the European Parliament and the Council by specifying a methodology for assessing greenhouse gas emission savings from low-carbon fuels. The methodology complements the methodologies for **renewable hydrogen** and **renewable fuels of non-biological origin** (**RFNBOs**), and in so doing completes the regulatory framework for hydrogen.

  The critical point is that to be low carbon, hydrogen and hydrogen derived fuels will have to demonstrate that they need to achieve at least a 70% saving compared to unabated fossil fuels.

  For those following the progress of the development to the delegated act, while progress has taken time, that time appears to have been well spent.

- **Hydrogen Acceleration Act gathering pace**: On **July 8, 2025**, the **Federal German Government** opened for public consultation a draft of the **Hydrogen Acceleration Act**. The purpose of the draft is to provide the legislative and regulatory framework to accelerate the availability of hydrogen, and as such the draft law addressed the entirety of the hydrogen value chain. On finalization of the **Hydrogen Acceleration Act**, we will provide a summary of its effect. One of the much-touted benefits of the Hydrogen Acceleration Act is that the approval and permitting process will be accelerated.

- **Draft law to pave way for geothermal and heating projects**: On **July 4, 2025**, the **Federal German Government** published a draft law to simplify approval processes for the development of geothermal, heat storage and pipelines, and pumps. As reported, Germany has some of the largest geothermal reserves within the EU.

- **EU Taxonomy Simplification**: On **July 4, 2025**, the **European Commission** (**EC**) published a Delegated Regulation amend Commission Delegated Regulation (EU) 2021/2178 as regards the simplification of the content and presentation of information to be disclosed concerning environmentally sustainable activities and Commission Delegated Regulations (EU) 2021/2139 and (EU) 2023/2486 as regards simplification of certain technical screening criteria for determining whether economic activities cause no significant harm to environmental objectives. As the title indicates the amendment is intended to simplify the Disclosures, Climate and Environmental Delegated Acts, and will come into effect on **January 1, 2026**.

  One of the key changes is the ability for companies to not have to assess Taxonomy-eligibility and alignment for economic activities that are **not financially material for their businesses.** Activities are considered non-material for non-financial companies if they account for **less than 10% of revenue, capex or operating expenses**. For financial companies, non-materiality is defined as financial assets that account for less than 10% of loans and investments financing specific economic activities whose use of proceeds is known, while for exposures where use of proceeds by the borrowing or investee company is not known, firms can rely on the Taxonomy KPIs of the borrowing or investee company. There are also changes to the green asset ratio (i.e., the reported share of a bank's assets that are aligned with the Taxonomy) requirements for financial companies, as well as simplified "Do No

Significant Harm" criteria for the pollution prevention and control objective regarding the use and presence of chemicals.

- **EU Energy & Raw Materials Platform to go live in September**: During the first week of **July 2025**, it was reported widely that the Energy & Raw Materials Platform will go live to match supply-side with demand-side. As reported, the Platform has developed a Hydrogen Mechanism that will allow suppliers of renewable and low carbon hydrogen to match with demand-side. This is notable because it provides a means for a market for the trade in renewable and low carbon hydrogen to develop, providing an open and transparent market mechanism.
- **Pricing non-permanent CCU:** The permanence of carbon capture and storage is an absolute and relative concept: absent loss of containment, geological storage of CO_2 is regarded as permanent. The use of captured CO_2 (**CCU**) to produce a fuel or a product is not permanent. During 2026, the **European Commission** (**EC**) will assess how to account for non-permanent carbon capture and use. The treatment of non-permanent capture and use should be accounted for appropriately so that the EU ETS trading scheme provides the correct pricing signals. For these purposes, CONCITO and the Clean Air Task Force will work together.

  As reported, the two policy options being considered are:

  1. **Option 1**: final emitter is responsible for the GHG emissions arising and will be required to acquire and to acquit emissions permits; and
  2. **Option 2**: capture installation is responsible (consistent with the current approach on the basis that capture is not permanent).

  Getting the price point under an **EU ETS** is critical.

HELPFUL PUBLICATIONS AND DATA BASES

In addition to publications covered by this edition of **P_2N_0**, the most noteworthy publications read by the author during **July 2025** are:

- **World Bank Group Carbon Pricing** Trends: During **July 2025**, the **World Bank Group** published 2025 State and Trends of Carbon Pricing. The publication makes for an interesting reading. The publication provides context and describes themes as follows:
  1. Governments are facing fiscal pressure amid an uncertain economic environment;
  2. Carbon pricing provides a means of supporting development of projects in an uncertain economic environment;
  3. Over the last year there has been continued momentum;
  4. Voluntary carbon markets are becoming increasingly global;
  5. Innovation is emerging, including through the development of insurance products;
  6. The private sector is playing a critical role; and
  7. The growth in instruments recognising GHG emission avoidance, reduction and removal marks global progress.

For those active in this area, the publication provides a helpful summary.

- **2025 Statistical Review of World Energy**: At the end of **June 2025**, the **Energy Institute** published its [2025 Statistical Review of World Energy]. Among the findings in the **Statistical Review** is that the energy sector gave rise to around **40.8 billion metric tonnes** (or **40.8 Giga-tonnes of**) **CO_2-e** GHG emissions during 2024. This is consistent with other statistics provided during the first month of the calendar year.

CURRENT STATE OF PLAY – OBLIGATIONS OF STATES IN RESPECT OF CLIMATE CHANGE

1. **What? And Why?**:

On **July 23, 2025, The International Court of Justice** [10] (**ICJ**) gave an **Advisory Opinion** on the ***Obligations of States in respect of Climate Change.***

The **General Assembly of the United Nations** adopted **resolution 77/276** asking the **ICJ** for an advisory opinion[11]. The request for an advisory opinion arose from uncertainty as to whether States had binding obligations, and, if so, the nature of those obligations, and the consequences of States breaching those obligations. This had been a matter of debate, both as to the nature and extent of the obligations and the consequences of any breach of them.

2. **Current State of Play**:

This Current State of Play is intended to provide a summary of the key points arising from the **Advisory Opinion**. This summary is not intended to critique the **Advisory Opinion**, other commentators are at work doing that. Rather this summary is intended to identify the key points from a practical perspective, and to outline possible implications.

For those reading the **Advisory Opinion**, it is not a judgment of a court. It is an **Advisory Opinion** of the ICJ, and in the context in which the **Advisory Opinion** is give, the ICJ:

> "*is participating in the activities of the United Nations and the international community represented in that body, with the hope that [the conclusions of the Advisory Opinion will allow the law to inform social and political action to address the ongoing climate crisis*".

In other words, for the purposes of the **Advisory Opinion**, the ICJ is not acting as a judicial body. Without wishing to be controversial, this is apparent throughout the **Advisory Opinion**, with many assumptions of fact, and, in some areas (in particular in the area of causation) suggestions are made, which when viewed from a "black letter law" perspective, are not strong.

Given the role of the ICJ as the judicial body of the United Nations, the **Advisory Opinion** will be front and centre in respect of any dispute between States relating to breach of Treaty obligations.

As such, the **Advisory Opinion** will guide and is likely to be taken as a statement of international law, in any judicial determination of the ICJ in any dispute between States.

Given the focus of P_2N_0, our perspective is that the Advisory Opinion will be used as a guide to the obligations of each State party under the **Paris Agreement**. The **Advisory Opinion** provides no more

---

[10] The International Court of Justice is the judicial body of the United Nations. The primary judicial function of the ICJ is to adjudicate between States. In addition, the ICJ provides advisory opinions.

- [11] (a) "What are the obligations of States under international law to ensure the protection of the climate system and other parts of the environment from anthropogenic emissions of greenhouse gases for States and for present and future generations?
  (b) What are the legal consequences under these obligations for States where they, by their acts and omissions, have caused significant harm to the climate system and other parts of the environment, with respect to:
    (i) States, including, in particular, small island developing States where they, by their geographical circumstances and level of development, are injured or specifically affected by or are particularly vulnerable to the adverse effects of climate change?
    (ii) Peoples and individuals of the present and future generations affected by the adverse effects of climate change?

than a description of the key provisions of the **Paris Agreement**, critically, obligations are to undertake the actions aimed at addressing climate change as prescribed by the **Paris Agreement**.

The obligations described by the ICJ for the purposes of the **Paris Agreement** are not absolute obligations, i.e., they are no obligations on each State to achieve stated levels of avoidance, reduction and removal (**ARR**) of greenhouse gas (**GHG**) emissions from the climate system.

As such, while the ICJ describes these obligations as binding, they are not binding in the sense of requiring any State to achieve any stated ARR outcome.

3. **Key takeaways**:

- The **Advisory Opinion** is not binding, it is advisory only[12].
- While the **Advisory Opinion** is not binding, its form and substance appears intended to provide an authority for actions and claims to be brought against countries for not complying with the obligations that the ICJ finds exist in respect of Climate Change. What is written on the tin, is in the tin!
- The **Advisory Opinion** describes what the ICJ considers to be the obligations of States as follows:
    - Climate Change Treaties[13] (see **section 6** below);
    - Customary International Law;
    - Other Treaties[14] that relate to the protection of the climate system and other parts of the environment form anthropogenic GHG emissions;
    - United Nations Convention on the Law of the Sea, the obligation being to adopt measures to protect and to preserve the marine environment, including from the adverse effects of climate change and to co-operate in good faith; and

[12] One of the consequences of being advisory only is that the ICJ has not undertaken any assessment whether any particular State has responsibility for not discharging any obligation described by the ICJ, rather an assessment of the actual obligation owed by any State can only be undertaken on a case-by-case basis.

[13] The ICJ defines Climate Change Treaties for the purpose of the Advisory Opinion as: The United Nations Framework Convention on Climate Change (UNFCCC), which came into effect on March 21, 1994, the Kyoto Protocol, which came into effect on February 16, 2005, and the Paris Agreement, which came into effect on November 4, 2016. The ICJ states that the UNFCCC is establishes the objective – to stabilize GHG concentrations in the climate system at a level that would prevent dangerous interference with the climate system.

[14] The Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer and its Kigali Amendment, the Convention on Biological Diversity and the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought or Desertification.

- International human rights law, the obligation being to take necessary measures to protect the climate system and other part of the environment to ensure the effective enjoyment of human rights.

While these obligations are described as arising in five contexts (being the context in which the ICJ considers that obligations may arise as a matter of international law), as a practical matter, it is the description in the **Advisory Opinion** of obligations under the **Paris Agreement** (as one of the **Climate Change Treaties**) that is likely to give rise to debate, and, actions and claims.

As with all States that are party to Treaties, ultimately a State does not need to be party to a Treaty. One of the key themes that emerges from the Advisory Opinion is that the ICJ appears to regard Treaties as akin to contractual obligations.

- The **Advisory Opinion** states that if any State with any obligation breaches any obligation, that breach constitutes an internationally wrongful act or omission "entailing the responsibility of the State".

  The consequences of any breach, which is an internationally wrongful act:

  - Is that obligation of the State that has been breached, continues to be an obligation with which the State must comply;

  - May include a secondary obligation to cease that wrongful act or omission, provision of assurance that the breach will not be repeated, "full reparation to injured States" in the form of compensation and restitution (assuming that causal connection is sufficient between the breach and the compensation or restitution).

4. **Key points for reflection**

Some points made in the **Advisory Opinion** have caused pause for reflection as follows:

- The concept of "full reparation to injured States" one State to another State, has given rise to considerable comment, and, no doubt, will continue to do so.

- "whether or not individuals have any entitlement to invoke the legal responsibility of States or to make a claim" is left open, the ICJ stating that this will depend on the obligations of each State.

- "Failure of a State to take appropriate action to protect the climate system from greenhouse gas emissions – including through fossil fuel production, fossil fuel consumption, the granting of fossil fuel exploration licences or the provision of fossil fuel subsidies – may constitute in internationally wrongful act which is attributable to that State". This point has given rise to considerable comment.

- Failure of a State "to exercise regulatory due diligence" may constitute an internationally wrongful act or omission if the State does not regulate the activities of private actors.

- "The [ICJ] considers that each injured State may invoke separately the responsibility of every State which has committed an internationally wrongful act resulting in damage to the climate system and other parts of the environment. And where several States are responsible for the same internationally wrongful act, the responsibility of each State may be involved in relation to that act."

  The ICJ goes on to state that the ICJ "begins by observing that causation of damage is not a requirement for the determination of responsibility as such. The [ICJ] recalls that the fact that the damage may be the result of concurrent causes is not sufficient to exempt the [State] from any obligation to make reparation. The [ICJ] is of the view that the required legal standard of a "sufficiently direct and certain causal nexus" between an alleged wrongful action or omission and the alleged damage is flexible enough to address the challenges arising in respect of the phenomenon of climate change".

  This analysis has given rise to considerable reflection among black letter lawyers. While the purpose of this summary is not to critique the **Advisory Opinion**, there are a number of statements made by the ICJ that give rise to reflection, the statements about causation are the least convincing.

5. **Possible implications**

   There are a number of possible implications, noting, however, that in countries that have legislated to achieve their nationally determined contributions under the Paris Agreement, the law of those countries goes beyond the description of the obligations of States under the Paris Agreement.

   In countries that have not legislated to achieve their nationally determined contributions, it is possible that actions may be brought based on the **Advisory Opinion**, typically, to seek declaration, that a country (that is a State party to the Paris Agreement) is in breach of an obligation and must cease that breach.

   It is possible that some States will take advice in respect of their prospectives of success in bringing an action against another State or State in the ICJ, on the basis that another State or other States have breached an obligation and that breach is an international wrongful act or omission.

   For States with fossil fuel industries, and corporations and other organizations involved in the hydrocarbon sector, the statement from the ICJ that: "Failure of a State to take appropriate action to protect the climate system from greenhouse gas emissions – including through fossil fuel production, fossil fuel consumption, the granting of fossil fuel exploration licences or the provision of fossil fuel subsidies – may constitute an internationally wrongful act which is attributable to that State", has captured attention.

   The author will be running a series of seminars on the possible implications of this statement, and those seminars will critique this statement from the ICJ. These seminars will be tailored to corporations and organizations that are producers, transporters, suppliers and users of energy in the broadest sense.

6. Nature of obligations

Before considering the obligations described in the **Advisory Opinion**, it is important to understand the point in time at which an obligation arose. The **Advisory Opinion** does not address the point directly.

In this context, for the purposes of this **Current State of Play**, we are going to focus on the description of the obligations provided by the ICJ for the purposes of the Paris Agreement.

State Parties to the Paris Agreement have an obligation:

- to act with due diligence in taking measures in accordance with their common and yet different responsibilities and respective capabilities to make an adequate contribution to achieving the temperature goals set out in the Paris Agreement;
- to prepare, communicate and maintain successive and progressive nationally determined contributions that are capable of achieving the temperature goals set out in the Paris Agreement;
- to pursue measures that are capable of achieving the objectives set out in their successive nationally determined contributions; and
- to adapt and to cooperate including through technology and financial transfers which must be performed in good faith.

As noted above, while the ICJ describes these obligations as binding, they are not binding in the sense of requiring any State to achieve any stated ARR outcome.

Primary Author:

MICHAEL HARRISON*
Partner
michael.harrison@bakerbotts.com

Other Contacts:

JASON BENNETT
Partner
jason.bennett@bakerbotts.com

MARK BISCH
Partner
mark.bisch@bakerbotts.com

JULIE CRESS
Partner
julie.cress@bakerbotts.com

MONA DAJANI
Partner
mona.dajani@bakerbotts.com

RICHARD GUIT
Partner
richard.guit@bakerbotts.com

STUART JORDAN
Partner
stuart.jordan@bakerbotts.com

DANIEL REINBOTT
Partner
daniel.reinbott@bakerbotts.com

ANDREW ROCHE
Partner
andrew.roche@bakerbotts.com

MARK ROWLEY
Partner
mark.rowley@bakerbotts.com

SHAILESH SAHAY
Partner
shailesh.sahay@bakerbotts.com

REBECCA SEIDL
Partner
rebecca.seidl@bakerbotts.com

ELAINE WALSH
Partner
elaine.walsh@bakerbotts.com

SHANE WILSON
Partner
shane.wilson@bakerbotts.com

* Michael Harrison is the primary author of P_2N_0, and editor. Any errors are Michael's. P_2N_0 is written early each Saturday morning. In writing P_2N_0, Michael sources from original material. If a news item is covered broadly, the words **reported widely** connote that at least three sources have covered that news item, and **reported** connotes at least two sources. If there is only one source that is not the original material, that source is named.

Learn more about Baker Botts' Energy Transition Practice