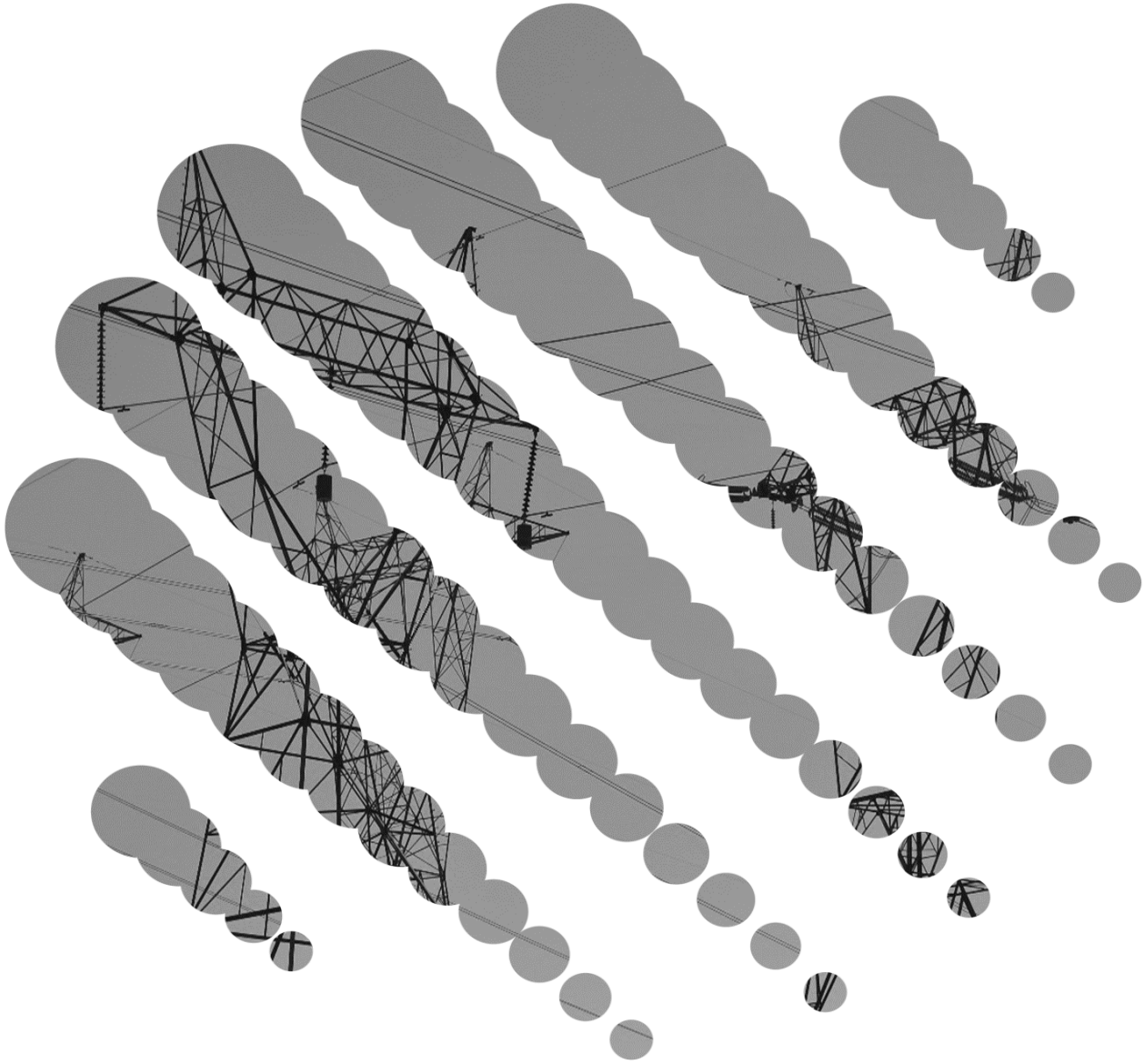
Carbon Performance assessment of electricity utilities: note on methodology

November 2021



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1. INTRODUCTION

The Transition Pathway Initiative (TPI) is a global initiative led by asset owners and supported by asset managers. Established in January 2017, TPI is now supported by over 110 investors globally with nearly $40 trillion of assets under management and advice.[1]

On an annual basis, TPI assesses how companies are preparing for the transition to a low-carbon economy in terms of their:

- *Management Quality* – all companies are assessed on the quality of their governance/management of greenhouse gas emissions and of risks and opportunities related to the low-carbon transition;
- *Carbon Performance* – in selected sectors, TPI quantitatively benchmarks companies' carbon emissions against international climate targets made as part of the 2015 UN Paris Agreement.

TPI publishes the results of its analysis through an open access online tool hosted by the Grantham Research Institute on Climate Change and the Environment at the London School of Economics (LSE): www.transitionpathwayinitiative.org.

Investors are encouraged to use the data, indicators and online tool to inform their investment research, decision making, engagement with companies, proxy voting and dialogue with fund managers and policy makers, bearing in mind the Disclaimer that can be found in section 6. Further details of how investors can use TPI assessments can be found on our website.

The purpose of this note is to provide an overview of the methodology being followed by TPI in its assessment of the Carbon Performance of electricity utilities.

[1] As of October 2021.

2. THE BASIS FOR TPI'S CARBON PERFORMANCE ASSESSMENT: THE SECTORAL DECARBONIZATION APPROACH

TPI's Carbon Performance assessment is based on the Sectoral Decarbonization Approach (SDA).[1] The SDA translates greenhouse gas emissions targets made at the international level (e.g. under the Paris Agreement to the UN Framework Convention on Climate Change) into appropriate benchmarks, against which the performance of individual companies can be compared.[2]

The SDA is built on the principle of recognising that different sectors of the economy (e.g. oil and gas production, electricity generation and automobile manufacturing) face different challenges arising from the low-carbon transition, including where emissions are concentrated in the value chain, and how costly it is to reduce emissions. Other approaches to translating international emissions targets into company benchmarks have applied the same decarbonization pathway to all sectors, regardless of these differences.[2]

Therefore the SDA takes a sector-by-sector approach, comparing companies within each sector against each other and against sector-specific benchmarks, which establish the performance of an average company that is aligned with international emissions targets.

Applying the SDA can be broken down into the following steps:

- A global carbon budget is established, which is consistent with international emissions targets, for example keeping global warming below 2°C. To do this rigorously, some input from a climate model is required.
- The global carbon budget is allocated across time and to different regions and industrial sectors. This typically requires an integrated economy-energy model, and these models usually allocate emissions reductions by region and by sector according to where it is cheapest to reduce emissions and when (i.e. the allocation is cost-effective). Cost-effectiveness is, however, subject to some constraints, such as political and public preferences, and the availability of capital. This step is therefore driven primarily by economic and engineering considerations, but with some awareness of political and social factors.
- In order to compare companies of different sizes, sectoral emissions are normalised by a relevant measure of sectoral activity (e.g. physical production, economic activity). This results in a benchmark pathway for emissions intensity in each sector:

$$\text{Emissions intensity} = \frac{\text{Emissions}}{\text{Activity}}$$

  Assumptions about sectoral activity need to be consistent with the emissions modelled and therefore should be taken from the same economy-energy modelling, where possible.

[2] Another initiative that is also using the SDA is the Science Based Targets Initiative (http://sciencebasedtargets.org/).

- Companies' recent and current emissions intensity is calculated, and their future emissions intensity can be estimated based on emissions targets they have set (i.e. this assumes companies exactly meet their targets).[3] Together these establish emissions intensity pathways for companies.
- Companies' emissions intensity pathways are compared with each other and with the relevant sectoral benchmark pathway.

While companies will have different initial emissions intensities – i.e. different starting points – a fundamental tenet of the SDA approach is that all companies in a sector are required to converge to the average emissions intensity in 2050. Not only does this correspond with a fair distribution of effort across companies, there are good reasons to expect companies' emissions intensities to converge over time, as techniques and technologies for reducing emissions diffuse from leaders to laggards.[3]

[3] Alternatively, future emissions intensity could be calculated based on other data provided by companies on their business strategy and capital expenditure plans.

3. HOW TPI IS APPLYING THE SDA

3.1. Deriving global benchmark paths

The key inputs to calculating the benchmark pathways are:

- A time path for economy-wide carbon emissions, which is consistent with meeting a particular climate target (e.g. limiting global warming to 1.5°C) by keeping cumulative carbon emissions within the associated carbon budget.
- A breakdown of this economy-wide emissions path into emissions from key sectors (the numerator of sectoral emissions intensity).
- Consistent estimates of the time path of physical production from, or economic activity in, these key sectors (the denominator of sectoral emissions intensity).

TPI obtains all three of these inputs from the International Energy Agency (IEA), via its *World Energy Outlook* and *Net Zero by 2050* reports. [4-5] The IEA has established expertise in modelling the cost of achieving international emissions targets. It also provides unprecedented access to the modelling inputs and outputs in a form suitable for applying the SDA.

The IEA's economy-energy model simulates the supply of energy and the path of emissions in different sectors burning fossil fuels, or consuming energy generated by burning fossil fuels, given assumptions about key inputs, such as economic and population growth.

In low-carbon scenarios, the IEA model minimises the cost of adhering to a carbon budget by always allocating emissions reductions to sectors where they can be made most cheaply, subject to some constraints as mentioned above. These scenarios are therefore cost-effective, within some limits of economic, political, social, and technological feasibility.

The IEA's work can be used to derive three benchmark emissions paths, against which companies are evaluated by TPI:

1. A 1.5 Degrees scenario, which is consistent with the overall aim of the Paris Agreement to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels".[6] This scenario gives a probability of 50% of holding the global temperature increase to 1.5°C.
2. A Below 2 Degrees scenario, which is also consistent with the overall aim of the Paris Agreement to limit warming, albeit at the lower end of the range of ambition. This scenario gives a probability of 50% of holding the global temperature increase to 1.65°C.[4]
3. A National Pledges scenario built on the IEA's 2020 Stated Policies Scenario, which takes into account policies which were in place or under development up to mid-2020. According to the IEA, this aggregate is currently insufficient to put the world on a path to limit warming to 2°C, even if it will constitute a departure from a business-as-usual trend. This scenario is expected to lead to a global temperature increase of 2.6°C by 2100 with a probability of 50%.[4]

For each scenario, IEA modelling output provides sector-specific emissions paths. It also provides associated estimates of production in each sector. Alternatively, input assumptions on overall economic growth can be used as a measure of sectoral activity (under the assumption that the sector grows at the same rate as the overall economy). Emissions are then divided by activity to derive sectoral pathways for emissions intensity.

Figure 1 shows the benchmark emissions intensity pathways for the electricity utilities sector compared to our previous benchmarks for the sector. Table 1 provides the underlying data on grid intensities, which we use directly from the IEA reports as these figures exclude emissions from heat production.

Figure 1 Benchmark global carbon intensity pathways for the power sector (tonnes of CO_2 per MWh of electricity generation)

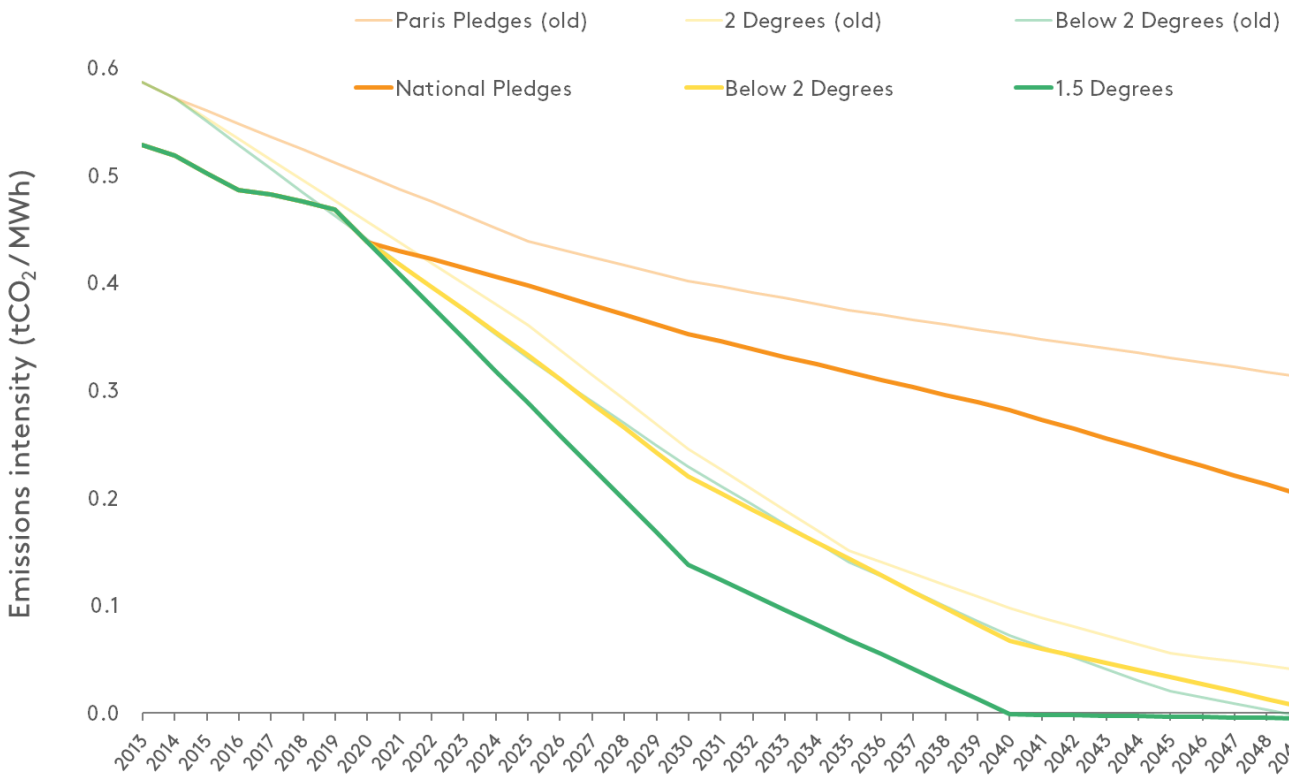


Table 1 Projections of grid intensities used to create electricity sector pathways (Source: IEA)

	2019	2020	2030	2040	2050
National Pledges scenario					
Carbon intensity (tCO2 / MWh)	0.468	0.438	0.352	0.282	0.195*
Below 2 Degrees scenario					
Carbon intensity (tCO2 / MWh)	0.468	0.438	0.220	0.067	0.014**
1.5 Degrees scenario					
Carbon intensity (tCO2 / MWh)	0.468	0.438	0.138	-0.001***	-0.005

* This intensity is estimated using a calculated intensity based on the IEA's World Energy Outlook 2021 data that is then adjusted to remove emissions from heat production.

** This intensity is calculated using the IEA's World Energy Outlook 2021 data that is then adjusted to remove emissions from heat production. For the purposes of our company assessments, we round this figure to net zero emissions from the electricity sector in 2050.

*** For the purposes of our company assessments, we round this figure to net zero emissions from the electricity sector in 2040.

3.2. Deriving regional benchmark paths

TPI usually assesses companies whose operations span multiple regions, so regional benchmarks are inappropriate. However, electricity is not a globally traded commodity and utilities tend to operate in individual regions. This means that, for this sector, it is possible to reflect different regions' emissions reduction requirements. Specifically, given regional differences in historical emissions and development stages, the Paris Agreement includes the principle of common but differentiated responsibilities, whereby developed nations are expected to reduce emissions more ambitiously.[6] A fair share approach to carbon budgets would require lower intensities of companies operating in developed regions and would require them to reach net zero sooner. Although the IEA does not explicitly consider historical emissions, pathways based on its regional breakdown of cost-effective generation and emission projections do require faster decarbonisation in developed countries. TPI therefore provides a complementary Carbon Performance assessment of electricity utilities using regional benchmarks that can be downloaded from our online tool.

Using regional data from the IEA's WEO 2020 and 2021, and estimates of regional net zero deadlines, we calculate benchmarks for North America, the European Union, other OECD, and non-OECD. To align with 1.5 Degrees, utilities in OECD countries must reach net zero by 2035, while those in non-OECD countries must reach net zero by 2040.[5] To align with Below 2 Degrees, companies in North America, the EU or in other OECD countries are estimated to reach net zero in 2045 while those in non-OECD countries reach net zero by 2050.

On our online tool, we provide regional alignment scores for utilities for whom at least 90% of revenue is generated in only one of the four regions listed above, based on public corporate disclosure.

Figure 2 Benchmark regional carbon intensity pathways for the power sector (tonnes of CO2 per MWh of electricity generation). The OECD pathways (not shown) are very similar to those for North America.

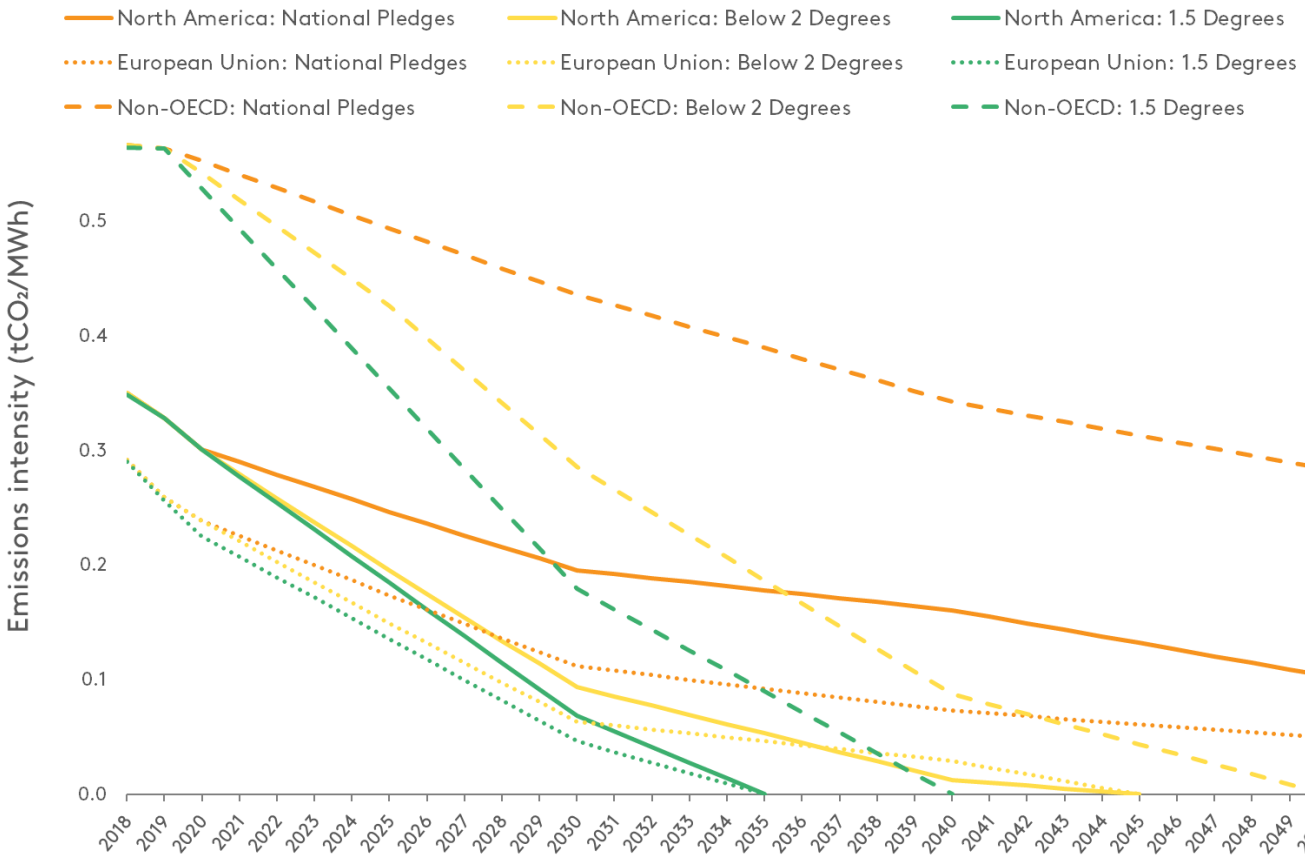


Table 2 Projections of regional emissions and electricity production used to calculate electricity sector intensity pathways for OECD countries, non-OECD countries, North America, and the European Union (Source: IEA)

	2019	2025	2030	2035	2040	2045	2050
OECD							
National Pledges scenario							
Carbon intensity (tCO2 / MWh)	0.329	0.241	0.199		0.148		0.104
Below 2 Degrees scenario							
Carbon intensity (tCO2 / MWh)	0.329	0.180	0.103		0.027	0	
1.5 Degrees scenario							
Carbon intensity (tCO2 / MWh)	0.329		0.064	0			
Non-OECD							
National Pledges scenario							
Carbon intensity (tCO2 / MWh)	0.564	0.493	0.436		0.343		0.284

Below 2 Degrees scenario						
Carbon intensity (tCO2 / MWh)	0.564	0.426	0.286		0.087	0
1.5 Degrees scenario						
Carbon intensity (tCO2 / MWh)	0.564		0.179		0	
North America						
National Pledges scenario						
Carbon intensity (tCO2 / MWh)	0.328	0.246	0.195		0.161	0.103
Below 2 Degrees scenario						
Carbon intensity (tCO2 / MWh)	0.328	0.195	0.094		0.012	0
1.5 Degrees scenario						
Carbon intensity (tCO2 / MWh)	0.328		0.068	0		
European Union[4]						
National Pledges scenario						
Carbon intensity (tCO2 / MWh)	0.259	0.174	0.112		0.073	0.050
Below 2 Degrees scenario						
Carbon intensity (tCO2 / MWh)	0.259	0.149	0.063		0.029	0
1.5 Degrees scenario						
Carbon intensity (tCO2 / MWh)	0.259		0.046	0		

Empty cells are years for which we do not have estimated figures; they are linearly interpolated in the pathways above.

3.3. Calculating company emissions intensities

TPI is based on public disclosures by companies. In any given sector, disclosures that are useful to TPI's Carbon Performance assessment tend to come in one of three forms:

1. Some companies disclose their recent and current emissions intensity and some companies have also set future emissions targets in intensity terms. Provided these are measured in a way that can be compared with the benchmark scenarios and with other companies (e.g. in terms of scope of emissions covered and measure of activity chosen), these disclosures can be used directly. In some cases, adjustments need to be made to obtain

[4] Note that electricity utilities based in the United Kingdom are compared to the European Union benchmark.

estimates of emissions intensity on a consistent basis. The necessary adjustments will generally involve sector-specific issues (see below).

2. Some companies disclose their recent and current emissions on an absolute (i.e. un-normalised) basis. Provided emissions are appropriately measured, and an accompanying disclosure of the company's activity can be found that is also in the appropriate metric, recent and current emissions intensity can be calculated by TPI.
3. Some companies set future emissions targets in terms of absolute emissions. This raises the particular question of what to assume about those companies' future activity levels. The approach taken in the TPI is to assume company activity increases at the same rate as the sector as a whole (i.e. this amounts to an assumption of constant market share), using sectoral growth rates from the IEA in order to be consistent with the benchmark paths. While companies' market shares are unlikely to remain constant, there is no obvious alternative assumption that can be made, which treats all companies consistently. Sectoral growth rates from the National Pledges (IEA STEPS) scenario are used.

The length of companies' emissions intensity paths will vary depending on how much information companies provide on their emissions since 2013, as well as the time horizon for their emissions targets.

3.4. Emissions reporting boundaries

Company emissions disclosures vary in terms of the organisation boundary that a company sets. There are two high-level approaches: the equity share approach and the control approach, and within the control approach there is a choice of financial or operational control. Companies are free to choose which organisation boundary to set in their voluntary disclosures and there is variation between companies assessed by TPI.

TPI accepts emissions reported using any of the above approaches to setting organisation boundaries, as long as:

1. The boundary that has been set appears to allow a representative assessment of the company's emissions intensity;
2. The same boundary is used for reporting company emissions and activity, so that a consistent estimate of emissions intensity is obtained.

At this point in time, limiting the assessment to one particular type of organisation boundary would severely restrict the breadth of companies TPI can assess.

When companies report historical emissions or emission intensity under *both* the equity share and control approaches, as is sometimes the case, TPI chooses the reporting boundary that seems most appropriate, based on the criteria of consistency with the reporting of activity, consistency with the target, and the length of the available time series of disclosures.

3.5. Data sources and validation

All company data in TPI come from companies' own disclosures. The sources for the Carbon Performance assessment include responses to the annual CDP questionnaire, as well as companies' own reports, e.g. sustainability reports.

Given that TPI's Carbon Performance assessment is both comparative and quantitative, it is essential to understand exactly what the data in company disclosures refer to. Company reporting varies not only in terms of what is reported, but also in terms of the level of detail and explanation provided. The following cases can be distinguished:

- Some companies provide data in a suitable form and they provide enough detail on those data for analysts to be confident appropriate measures can be calculated or used.
- Some companies also provide enough detail, but from the detail it is clear that their disclosures are not in a suitable form for TPI's Carbon Performance assessment (e.g. they do not report the measure of company activity needed). These companies cannot be included in the assessment.
- Some companies do not provide enough detail on the data disclosed and these companies are also excluded from the assessment (e.g. the company reports an emissions intensity estimate, but does not explain precisely what it refers to).
- Some companies do not disclose their carbon emissions and/or activity.

Once a company's preliminary performance assessment has been made based on the principles and procedures described above, it is subject to the following quality assurance:

- *Internal findings review*: the preliminary assessment is reviewed by analysts who were not originally involved in making it.
- *Company review*: once the initial findings review is complete, TPI writes to companies with their assessment and requests companies to review it and confirm the accuracy of the company disclosures being used. The company review includes all companies, i.e. it also includes those who provide unsuitable or insufficiently detailed disclosures.
- *Final assessment*: company assessments are reviewed and, if it is considered appropriate, revised.

3.6. Responding to companies

Allowing companies the opportunity to review and, if necessary, correct their assessments is an integral part of TPI's quality assurance process. We send each company its draft TPI assessment and the data that underpin the assessment, offering them the opportunity to review and comment on the data and assessment. We also allow companies to contact us at any point to discuss their assessment.

If a company seeks to challenge its result/representation, our process is as follows:

- TPI reviews the information provided by the company. At this point, additional information may be requested.
- If it is concluded that the company's challenge has merit, the assessment is updated.
- If it is concluded that there are insufficient grounds to change the assessment, TPI publishes its original assessment.
- If the company requests an explanation regarding its feedback after the publication of its assessment, TPI explains the decisions taken.
- If a company requests an update of its assessment based on data publicly disclosed after the research cut-off date communicated to the company, TPI can note the new disclosure on the company's profile on the TPI website.
- If a company chooses to further contest the assessment and reverts to legal means to do so, the company's assessment is withheld from the TPI website, and the company is identified as having challenged its assessment.

3.7. Presentation of assessment on TPI website

The results of the Carbon Performance assessments are posted on the TPI website, within the TPI tool. On each company page, its emissions intensity path is plotted on the same chart as the benchmark paths for the relevant sector. Different companies can also be compared on the toolkit main page, with the user free to choose which companies to include in the comparison.

4. SPECIFIC CONSIDERATIONS IN THE ASSESSMENT OF ELECTRICITY UTILITIES

4.1. Measure of emissions intensity

In the electricity utilities sector, the specific measure of emissions intensity is:

- Greenhouse gas emissions per unit of electricity produced, in units of (metric) tonnes of CO2 equivalent per megawatt hour.

This specifically covers emissions from the electricity generation process. It is sometimes referred to as 'absolute emissions' from electricity production (e.g. in the CDP questionnaire). In most cases, these emissions constitute all or nearly all of the company's scope 1 emissions, but some companies have significant scope 1 emissions from other sources, and these must be subtracted, or else a stand-alone figure for emissions from electricity generation must be provided.

There are three main reasons for the choice of measure. First, it is consistent with the data provided by the IEA for the benchmark paths, which comprise direct CO_2 emissions from electricity generation,[5] as well as the amount of electricity generated. Second, almost all power-sector emissions are from the generation process. Third, data are relatively widely available for the companies in the TPI sample.

Some companies are engaged in the generation of electricity and heat in combined heat and power (CHP) facilities. Because TPI focuses strictly on the emissions intensity of electricity generation, it is sometimes necessary for TPI to adjust such companies' disclosures. Where a company does not readily separate its disclosed emissions between electricity and heat, where possible TPI adjusts the company's emissions intensity by subtracting emissions due to the production of heat (or an estimate thereof) from the numerator, and the amount of heat produced from the denominator, so that the adjusted intensity reflects only the company's electricity generation activities.

4.2. Coverage of target

There are differences in the scope of companies' emissions targets. Some companies have set specific targets for emissions from electricity production, while others have set targets for total scope 1 emissions, or scope 1 and 2 emissions, etc.

Where a target covers a scope broader than just emissions from electricity production, further research is needed. In cases where emissions other than from electricity generation are negligible, and it is reasonable to assume that they will remain so, the percentage reduction in emissions (e.g. a 20% cut) can be directly applied to base year emissions from electricity production.

Companies often express targets relative to emissions in a base year (e.g. 2010), but they do not always report absolute emissions from electricity production in the base

[5] IEA only provides an estimate of CO2 emissions and does not include other greenhouse gases. However, these are typically a very small share of companies' emissions from electricity production (0-3%), so we allow a comparison of company emissions intensity, in terms of all greenhouse gases, with benchmark emissions intensity, in terms of CO_2 only.

year, rather they sometimes report base-year emissions in a different scope (e.g. total scope 1 emissions in 2010). If a company does not report absolute emissions from electricity generation in the base year, these are estimated where necessary using the ratio of absolute emissions to emissions in the company's chosen scope since 2013 (cumulatively).[6]

Most companies report recent and current absolute emissions of all greenhouse gases (i.e. CO_2 equivalent), but some have set future targets that relate to CO2 only. This disconnect is ignored due to the very small share of non-CO_2 greenhouse gases in companies' absolute emissions from electricity production, as explained above and in footnote 4.

4.3. Worked examples[7]

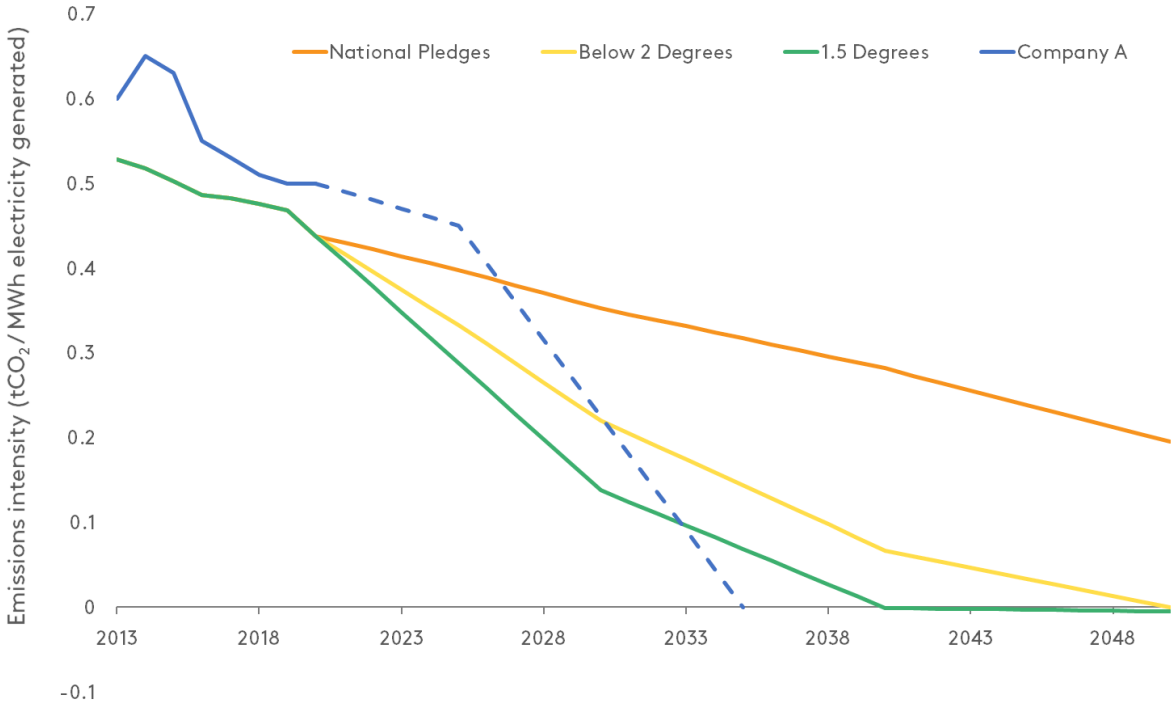
Company A: a simple case

Company A reports its emissions intensity in the required metric, i.e. greenhouse gas emissions from electricity generation, per unit of electricity produced. For example, in 2017 it was 0.80 tCO_2e / MWh. These figures are used directly without adjustment.

Company A has also set a target to reduce the emission intensity of its generation portfolio to 0.450 tCO_2e / MWh by 2025, and to 0 tCO_2e / MWh by 2035. After verifying that the target emission intensities are expressed in a manner consistent with the historical emission intensity disclosures, the target figures are used without adjustment.

[6] Due to the occasional practice of companies re-basing their emissions, this adjustment is preferred to using disclosures of base-year absolute emissions from past years' reporting. Take for example 2010 as the base year for a company's target. It is often the case that the company's stated base-year (2010) emissions in their 2016 CDP response differ from the company's stated 2010 emissions in their 2011 CDP response.

[7] In the following examples various numbers are rounded for ease of presentation.



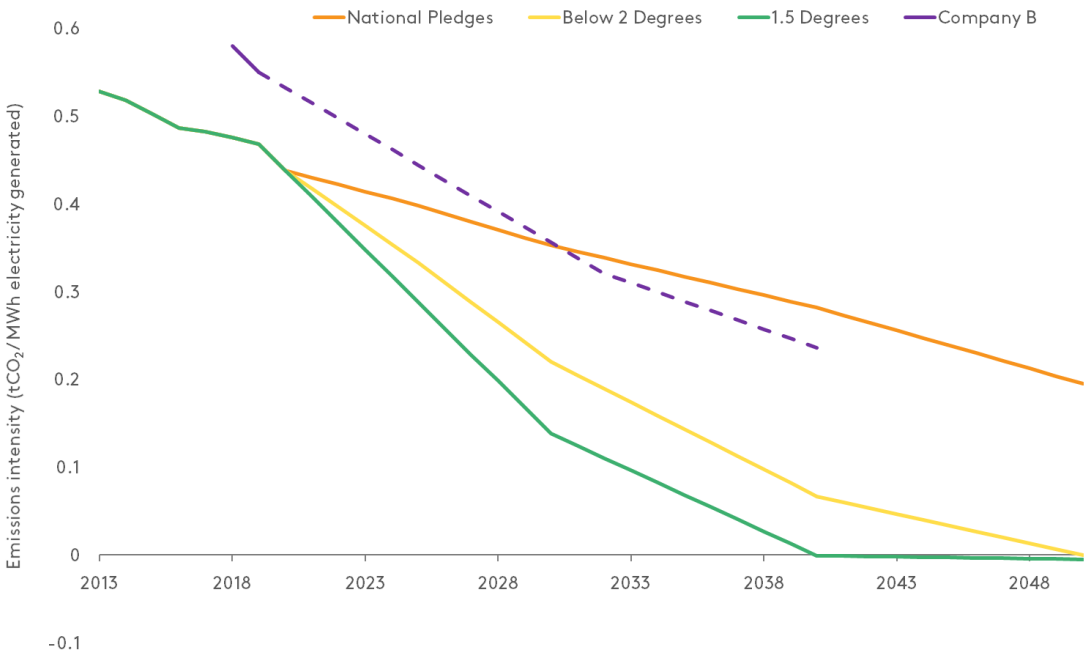
Company B: an absolute emissions target

Company B reports its absolute greenhouse gas emissions from electricity generation per unit of electricity produced. For example, in 2019 it was 0.55 tCO_2e / MWh. After verification, these figures are used directly without adjustment.

Company B also has a target to reduce its Scope 1 emissions by 30% below the 2005 level by the "early 2030s", and 45% by 2040. TPI understands this target to cover all of the company's Scope 1 emissions from electricity production. In order to translate this information into an estimate of emissions intensity between 2018 and 2040, the following steps are taken:

- "Early 2030s" is not further defined; however, it is necessary for TPI to assume a specific date to plot the charts. TPI assumes that "early 2030s" can be approximated by the year 2032.
- The 2005 emissions from electricity generation are 39.2 $MtCO_2e$. The company's target is understood to cover all such emissions. Hence, the target absolute emissions from electricity generation in 2032 and 2040 will be, respectively: 39.2 x (1 – 30%) = 27.4 $MtCO_2e$, and 39.2 x (1 – 45%) = 21.5 $MtCO_2e$.
- As the company does not provide an intensity target, its electricity production between 2019 and 2040 is assumed to grow at the same rate as regional electricity production according to the IEA scenarios. In the IEA STEPS scenario, electricity production in the US (where the company is located) grows cumulatively by 4.1% between 2019 and 2032, and 8.3% between 2019 and 2040. The company's electricity production in 2017 was 82,112,982 MWh, and its 2032 and 2040 production can be estimated at, respectively: 82,112,982 x (1 + 4.1%) = 85,479,614 MWh, and 82,112,982 x (1 + 8.3%) = 88,928,340 MWh.

- Dividing the company's estimated 2032 and 2040 emissions by these estimates of electricity production for the same years gives estimated intensities of 27.4 / 85,479,614 = 0.32 tCO_2e / MWh for 2032, and 21.5 / 88,928,340 = 0.24 tCO_2e / MWh for 2040.



5. DISCUSSION

This note has described the methodology followed by TPI in carrying out Carbon Performance assessment of companies, with a particular focus on electricity utilities.

TPI's Carbon Performance assessment is designed to be easy to understand and use, while robust. There are inevitably many nuances surrounding each company's individual performance, how it relates to the benchmarks and why. Investors may wish to dig deeper to understand these.

5.1. General issues

The assessment follows the Sectoral Decarbonization Approach (SDA), which involves comparing companies' emissions intensity with sector-specific benchmark emissions intensities that are consistent with international targets.

TPI uses the modelling of the International Energy Agency (IEA) to calculate the benchmark paths. The IEA modelling has a number of advantages, but it is also subject to limitations, like all other economy-energy modelling. In particular, model projections often turn out to be wrong. The comparison between companies and the benchmark paths might then be inaccurate. However, there is no way to escape the need to make a projection of the future in forward-looking exercises like this. IEA updates its modelling regularly with the aim of improving the accuracy of its projections and TPI updates its benchmark paths accordingly.

TPI uses companies' self-reported emissions and activity data to derive emissions intensity paths. Therefore companies' paths are only as accurate as the underlying disclosures.

Estimating the recent, current and especially the future emissions intensity of companies involves a number of assumptions. Therefore it is important to bear in mind that, in some cases, the emissions path drawn for each company is an estimate made by TPI, based on information disclosed by companies, rather than the companies' own estimate or target. In other cases, the information disclosed by companies is sufficient on its own to completely characterise the emissions intensity path.

5.2. Issues specific to electricity utilities

In the electricity utilities sector, the measure of Carbon Performance is absolute greenhouse gas emissions from electricity generation, per unit of electricity produced. While this covers almost all power-sector emissions, is consistent with the IEA benchmarks and can be calculated for most companies, it is a narrow measure of Carbon Performance for some companies in the sample. This particularly concerns companies that, as well as generating electricity, are significantly engaged in distributing or retailing electricity generated by other companies or are significantly engaged in other activities such as gas distribution/retail (thus straddling multiple sectors of the economy). These companies may have, respectively, a larger share of scope 2 emissions in total scope 1 and 2 emissions, and a larger share of scope 1

emissions coming from activities other than electricity generation. Note that TPI may include in a Carbon Performance assessment the electricity sold by a utility that was not generated by that utility in particular cases where including sold electricity represents a more accurate picture of the utility's emissions pathway.

6. DISCLAIMER

1. Data and information published in this paper and on the TPI website is intended principally for investor use but, before any such use, you should read the TPI website terms and conditions to ensure you are complying with some basic requirements which are designed to safeguard the TPI whilst allowing sensible and open use of TPI data. References in these terms and conditions to "data" or "information" on the website shall include the Carbon Performance data, the management quality indicators or scores, and all related information.
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