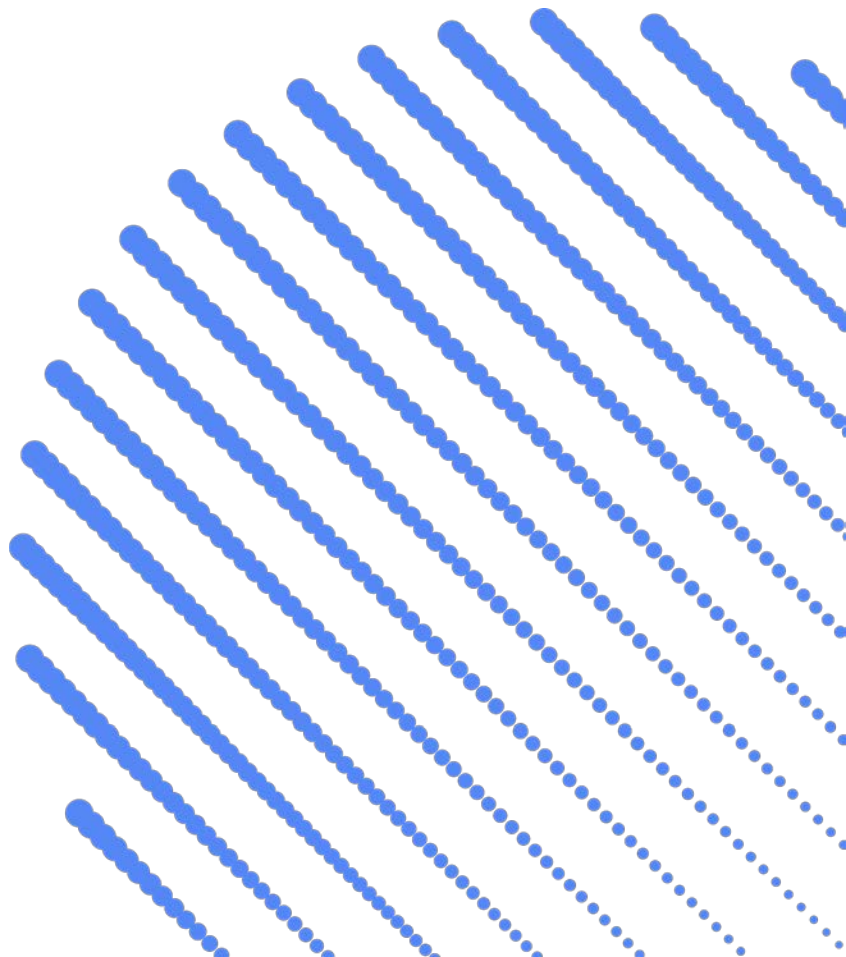


Transition
Pathway
Initiative

The State of Transition in the Coal Mining, Electricity and Oil and Gas Sectors: TPI's Latest Assessment

煤炭、电力和石油和天然气行业的过渡状态：TPI的最新评估

Faith Ward, Co-Chair of the Transition Pathway
Initiative



About the Transition Pathway Initiative

关于TPI

What is TPI and what is it for?

什么是TPI, 它的目的是什么?

A global initiative led by Asset Owners, supported by Asset Managers.

资产所有者主导的全球倡议，由资产管理者支持

Established in January 2017, investors supporting TPI have over £7/\$9.3 trillion AUM

成立于2017年1月, 超过7欧元/ 9兆3000亿美元AUM。

An open access online tool, now with data on 183 companies in 7 sectors with a high impact on climate change

一个开放的在线工具，现在有183家对气候变化的影响很大的公司和7个部门的数据

TPI assesses companies' carbon management and performance, in line with the recommendations of TCFD

TPI根据TCFD的建议评估公司的碳管理和绩效

Enabling investors to understand how the transition to a low-carbon economy could affect their portfolios

让投资者了解过渡到低碳经济会如何影响他们的投资组合

TPI Partners TPI合作伙伴



TPI Supporters TPI支持者

Aberdeen Standard
Investments

AVIVA
INVESTORS

BNP PARIBAS
ASSET MANAGEMENT

BRUNEL
Pension Partnership

CalPERS

CCLA
for the Church of England

Central Finance Board
of the Methodist Church

The Church Commissioners for England

THE CHURCH
OF ENGLAND
PENSIONS BOARD

Environment Agency
Pension Fund

AP
FJÄRDE AP-FONDEN

AP
FÖRSTA
AP-FONDEN

generation

gmpf

HERMES
INVESTMENT MANAGEMENT

Legal &
General
INVESTMENT MANAGEMENT

Local Authority
Pension Fund
Forum

LPP
Local Pensions Partnership

NorthernPool
The Collective Asset Pool for Diocesan, Manchester
Diocesan and Great Yorkshire Pension Funds

PGGM

Representative Church Body of the
Church of Ireland

RPMI
RAILPEN

ROBECO
The Investment Engineers

RUFFER

Schroders

AP3 Tredje AP-fonden

UBS

Union
Investment

USS

Wespath
BENEFITS | INVESTMENTS

West Midlands Pension Fund

Transition
Pathway
Initiative

An overview of the TPI Methodology and Tool

TPI的方法论和工具概述

Overview of TPI Tool

TPI工具概述

TPI assesses companies on TPI对公司进行以下评估:

1. Management Quality 管理质量
2. Carbon Performance 碳绩效

Largest public companies by market cap and highest emitters in 7 sectors 市值最大的上市公司和7个行业中的最高排放的公司:

- 64 fossil fuel producers (coal mining and oil and gas) 64家化石燃料生产商（煤矿和石油和天然气）
- 41 electricity utilities 41家电力公司
- 58 carbon-intensive manufacturers (cement, paper and steel) 58家碳密集型制造商（水泥、纸和钢）
- 20 auto manufacturers 20家汽车制造商

The screenshot shows the top of the TPI Tool website. On the left is the 'Transition Pathway Initiative' logo. On the right, it says 'In partnership with:' followed by logos for the University of Cambridge, LSE, and PRI. Below this is a dark navigation bar with links for 'About', 'TPI Tool', 'Methodology', 'Publications', and 'News'. On the far right of this bar are links for 'Sign-up', 'Contact us', and a search box.

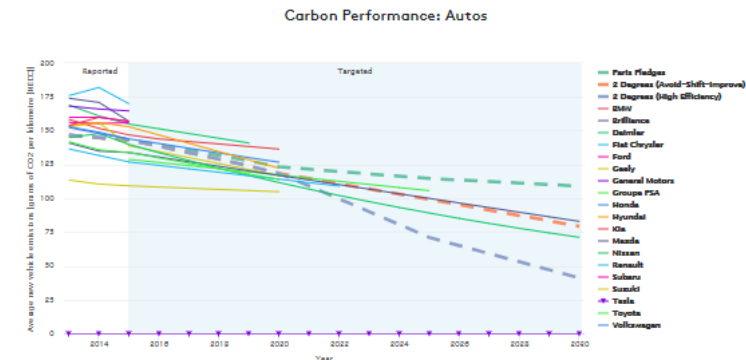
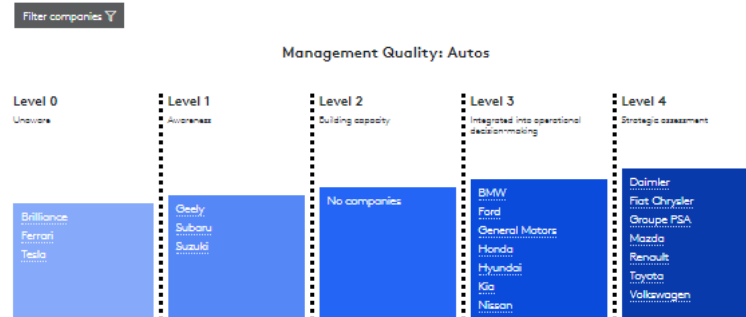
TPI Tool

The TPI tool enables the assessment of companies' carbon management quality and carbon performance, within a selected sector.

A tutorial to help you use the tool can be found [here](#).

[Download complete data set as an MS Excel file](#)

A search bar with the text 'Autos' entered. To the right of the search bar are two buttons: 'Submit' and 'Clear all'.



TPI Design Principles TPI设计原则

Company assessments based only on publicly available information

仅基于公开信息的企业评估

Outputs useful to Asset Owners and Asset Managers

对资产所有者和资产管理者有用的产出

Builds on existing initiatives and disclosure frameworks, such as TCFD

建立在现有的倡议和披露框架，如TCFD

Pitched at a high level of aggregation; applies to firm as a whole

适用于评估整个企业，不仅仅是单一的业务

Management Quality 管理质量

Level 0

Unaware 没有意识

Level 1

Awareness 有一些意识

Level 2

Building capacity 正在建设能力

Level 3

Integrating into operational decision making 整合到经营决策中

Level 4

Strategic assessment 战略评估

Data provided by FTSE Russell
FTSE Russell提供的数据

Company does not recognise climate change as a significant issue for the business

Company explicitly recognises climate change as a relevant risk/opportunity for the business

Company has a policy (or equivalent) commitment to action on climate change

Company has set GHG emission reduction targets

Company has published info. on its operational GHG emissions

Company has nominated a board member/committee with explicit responsibility for oversight of the climate change policy

Company has set quantitative targets for reducing its GHG emissions

Company reports on its Scope 3 GHG emissions

Company has had its operational GHG emissions data verified

Company supports domestic & international efforts to mitigate climate change

Company has a process to manage climate-related risks

Company discloses materially important Scope 3 GHG emissions (coal, oil and gas)

Company has set long-term quantitative targets (>5 years) for reducing its GHG emissions

Company has incorporated ESG issues into executive remuneration

Company has incorporated climate change risks and opportunities in its strategy

Company undertakes climate scenario planning

Company discloses an internal carbon price

Management Quality 管理质量

Level 0

Unaware 没有意识

Level 1

Awareness 有一些意识

Level 2

Building capacity 正在建设能力

Level 3

Integrating into operational decision making
整合到经营决策中

Level 4

Strategic assessment
战略评估

Data provided by FTSE Russell
FTSE Russell提供的数据

公司不承认气候变化是企业的一个重要问题。

公司明确地认识到气候变化是企业的相关风险/机会

公司有政策（或同等）承诺应对气候变化

公司制定温室气体减排指标

公司发布了温室气体排放信息

公司任命了一个董事会成员/委员会，负责监督气候变化政策

公司制定了减少温室气体排放的定量指标

公司报告其范围3温室气体排放

公司已验证其经营的温室气体排放数据

公司支持国内和国际努力缓解气候变化

公司有管理气候相关风险的程序

公司公布重大范围3温室气体排放（煤、油、气）

公司为减少温室气体排放制定了长期的定量指标（>5年）

公司已将ESG问题纳入高管薪酬评估

公司将气候变化风险和机遇纳入战略

公司着手气候情景规划

公司披露内部碳价格

Carbon Performance

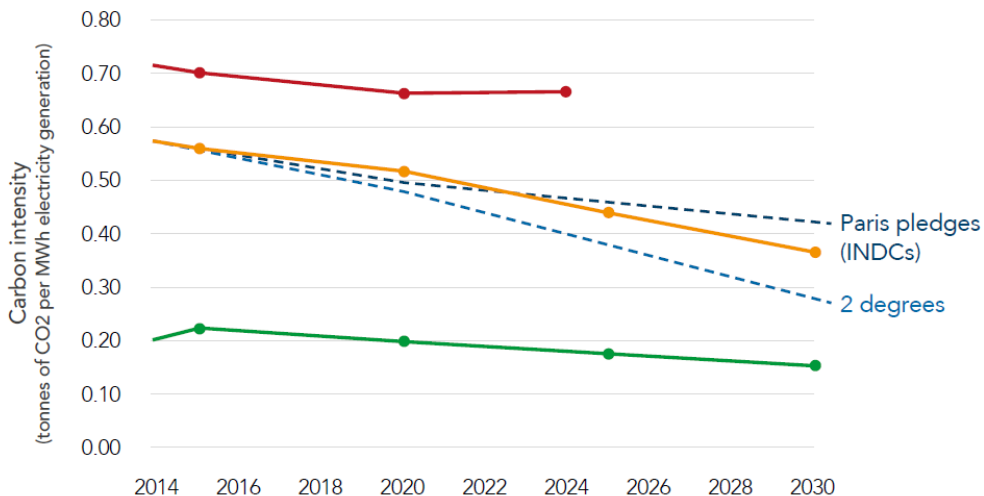
碳绩效

Tests alignment of company targets with Paris goals: science-based targets

巴黎的目标与公司目标定位：以科学为基础的目标

Benchmarks基准:

- National pledges (NDCs) to the Paris Agreement; the 'Paris Pledges' 巴黎协定的国家承诺 (NDC) ; “巴黎承诺”
- 2°C target 2°C目标
- *New* Below 2°C target * 低于2°C的新目标



— Company A's current carbon intensity and future targets are not aligned with the Paris pledges or 2 degrees

— Company B's current carbon intensity is aligned with the Paris pledges or 2 degrees, but its future target is only aligned with the Paris pledges

— Company C's current carbon intensity and future targets are aligned with 2 degrees

**Latest results: coal mining,
electricity, and oil and gas**

最新成果：煤矿、电力、石油和天然气

Management Quality level 管理质量水平

Level 0

Unaware 没有意识

1 company 家企业

1 coal mining company

1家煤炭企业

Level 1

Awareness 有一些意识

18 companies 家企业

8 coal mining companies

8家煤炭企业

4 electricity utilities

4家电力公用企业

6 O&G producers

6家油气生产商

Level 2

Building capacity 正在建设能力

33 companies 家企业

2 coal mining companies

2家煤炭企业

10 electricity utilities

10家电力公用企业

21 O&G producers

21家油气生产商

Level 3

Integrating into operational decision making
整合到经营决策中

24 companies 家企业

2 coal mining companies

2家煤炭企业

12 electricity utilities

12家电力公用企业

10 O&G producers

10家油气生产商

Level 4

Strategic assessment
战略评估

29 companies 家企业

6 coal mining companies

6家煤炭企业

15 electricity utilities

15家电力公用企业

8 O&G producers

8家油气生产商

Management Quality level 管理质量水平

Average company is going from “Building capacity” (Level 2) to “Integrating into operational decision making” (Level 3), i.e. it:

- Explicitly recognises climate change as a business risk/opportunity
- Has made a policy commitment to action

And is at the point of:

- Setting an emissions reduction target
- Disclosing operational emissions

一般企业正在从“建筑能力”（2级）到“整合到经营决策”（3级），即：

- 明确承认气候变化是商业风险/机会
- 作出了行动的政策承诺

问题是：制定减排目标披露经营性排放

4* companies 4*企业

Some companies satisfy all Management Quality criteria 一些企业满足所有管理质量标准

These companies do all the basics, and:

这些公司完成所有的基本工作，并且：

- Have quantitative, long-term targets 有定量、长期目标
- Incorporate ESG into executive remuneration 将ESG纳入高管薪酬
- Incorporate climate change risks/opportunities in company strategy 在公司战略中融入气候变化风险/机会
- Undertake climate scenario planning 规划气候情景
- Disclose an internal carbon price 披露内部碳价格

4* Company 4*企业	Sector 部门
AGL Energy	Electricity 电力公用
Anglo American	Coal mining (general mining) 煤炭(一般采矿)
BHP Billiton	Coal mining (general mining) 煤炭(一般采矿)
National Grid	Electricity 电力公用
Equinor (formerly Statoil)	Oil and gas 油气生产商
Repsol	Oil and gas 油气生产商

Trends in Management Quality 管理质量趋势

We see progress from 2017

我们看到2017的进步

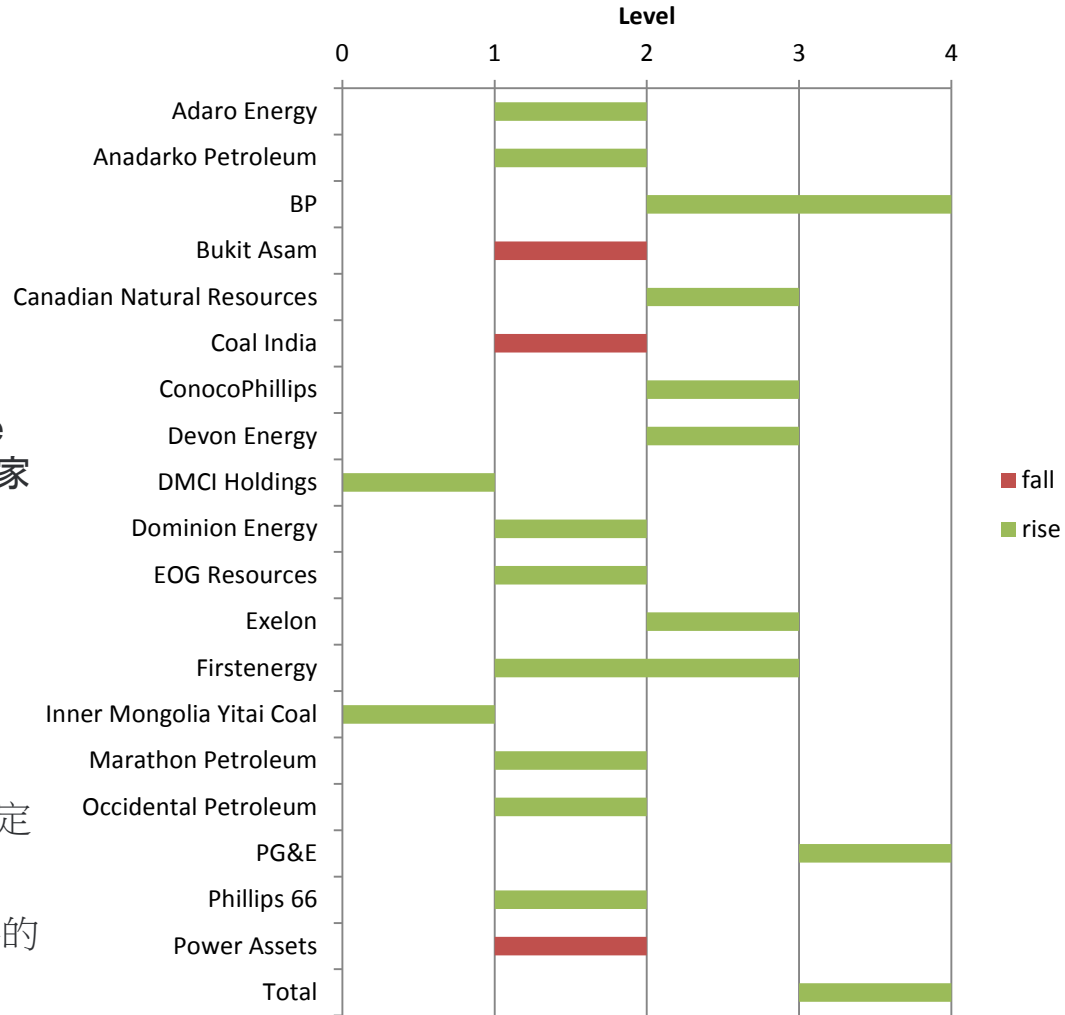
17 out of 54 companies have moved up; 3 have moved down 54家企业中有17家已经升级，有3家企业降级了。

8 companies move up by explicitly recognising climate change as a business risk/opportunity

8家企业明确承认气候变化是商业风险/机会

Another 6 companies move up by setting emissions reduction targets 另有6家企业通过制定减排目标而向上迈进。

There is more progress at lower levels 较低水平的企业有更多的进步



Management Quality: indicator by indicator

管理质量：指标

Most companies do basics; few take the more advanced steps

Almost all have policy and explicitly recognise climate change as business risk/opportunity

Most disclose emissions, manage climate change risks, and incorporate ESG into executive remuneration

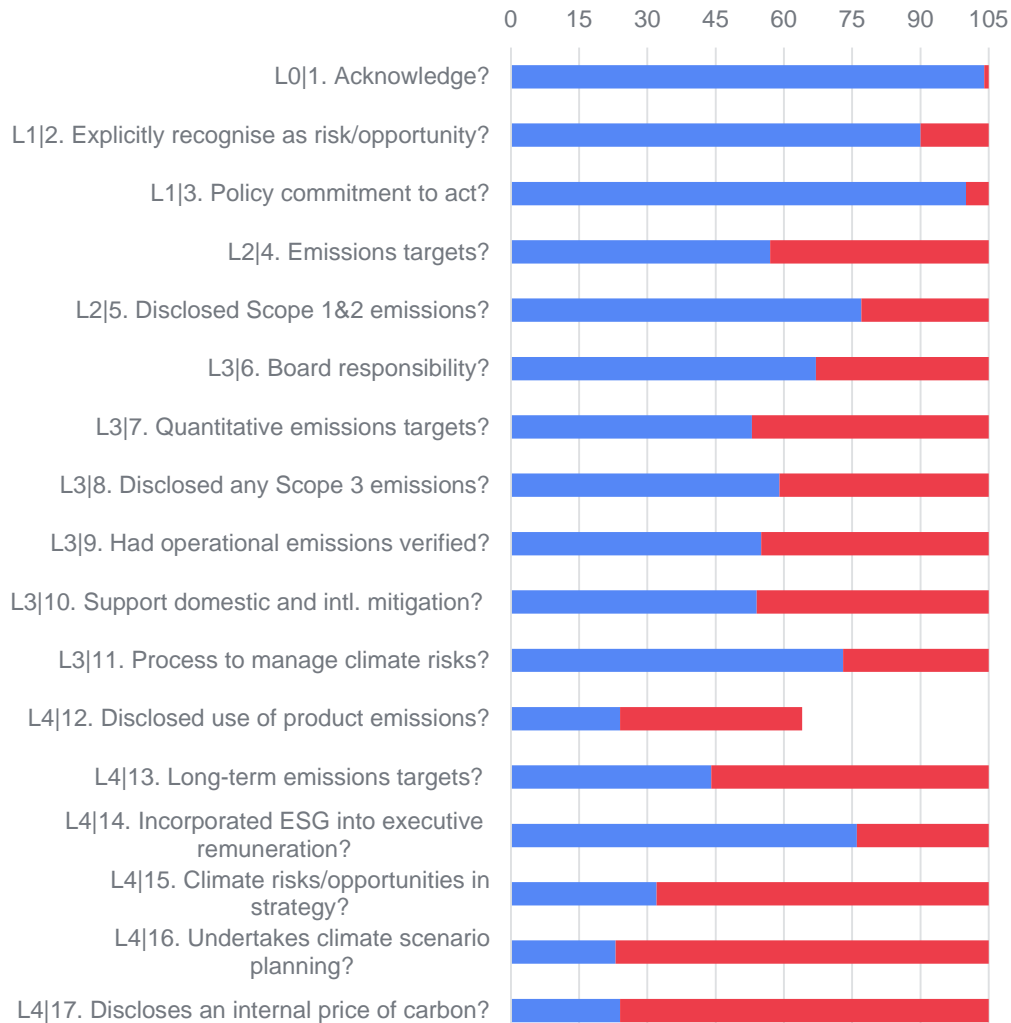
Few incorporate climate change risks/opportunities into strategy, undertake climate scenario planning, or disclose internal carbon price

大多数企业都做基础工作，很少有企业采取更先进的步骤。

几乎所有企业都有政策，并明确承认气候变化是商业风险/机会。

大多数披露排放，管理气候变化风险，并将ESG纳入高管薪酬。

很少有企业将气候变化风险/机遇纳入战略，进行气候情景规划，或披露内部碳价格。



Carbon Performance of electricity utilities 电力企业的碳绩效

We assess 37 electricity utilities with a significant electricity generation business

我们评估了37家电力企业的重大发电业务。

Quantitative emissions targets are relatively common in electricity, but still many are missing

定量排放目标在电力中相对普遍，但仍有许多缺失。

In 2020, >50% of targets are aligned with Paris Agreement in some form

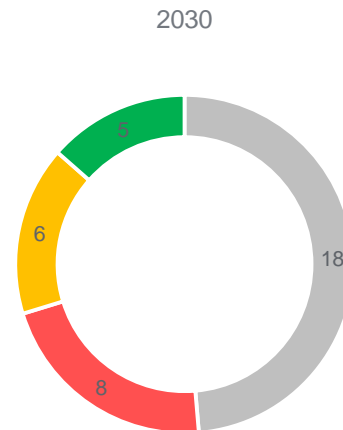
直到2020，50%的电力企业目标以某种形式与巴黎协定一致。

But failing to keep pace by 2030

但未能跟上2030

Little difference between Below 2°C and 2°C

低于2°C和2°C之间差别不大



Carbon performance in coal mining, and oil and gas

煤炭、石油和天然气的碳绩效

No targets in coal mining, or oil and gas, which include downstream emissions from use of sold products

开采煤炭或石油天然气没有目标，包括产品使用的下游排放量

TPI proposal for how to assess Carbon Performance in oil and gas, based on Shell's recently stated ambitions

基于壳牌最近的野心，TPI建议如何评估石油和天然气的碳表现

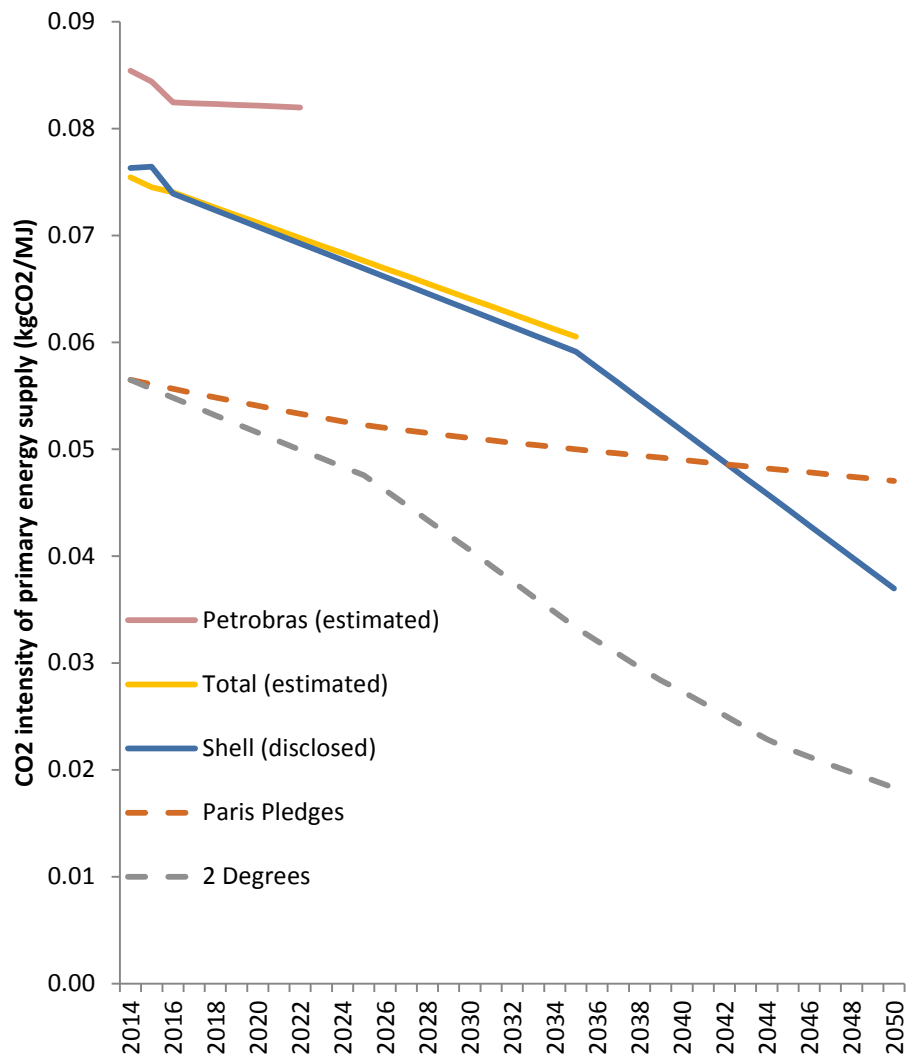
Performance measure: carbon intensity of primary energy supply

Long-term goal: *diversify* out of oil and gas

绩效指标：一次能源供应的碳强度

Similar approach possible in mining, perhaps looking at carbon intensity of revenue

采矿业也可能采用类似的方法，也许着眼于收入的碳强度。



Summary of results

结果总结

Measurable progress over the past 18 months, particularly in carbon management

过去18个月，碳管理方面有可衡量进展

More electricity utilities are making the transition to renewable energy。

更多的电力公司正在向可再生能源过渡

However, most companies still not taking a strategic approach to climate change (are not on Level 4)

然而，大多数公司仍然没有采取战略方法应对气候变化（不在4级）

Most electricity utilities either do not have quantitative, long-term emissions targets, or their targets do not keep pace with what the Paris Agreement requires

大多数电力公司要么没有定量的长期排放目标，要么他们的目标不符合巴黎协议的要求。

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