

RE-Users Summit 2019

再エネ調達、日本での選択肢

Miho Kurosaki

February 1, 2019



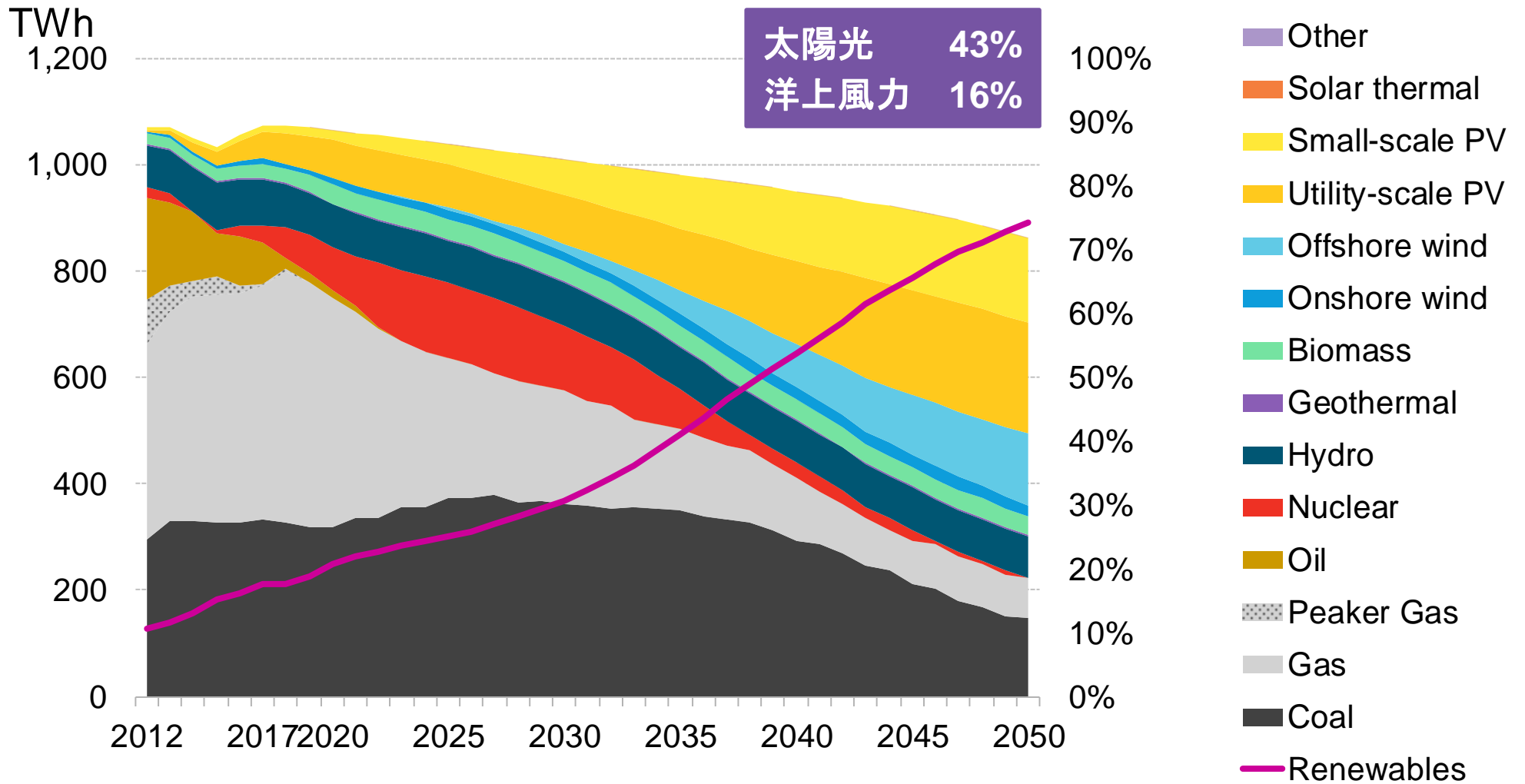
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Contents

日本の電源構成と予測	2
再エネ調達の選択肢	7
世界の再エネ調達	15

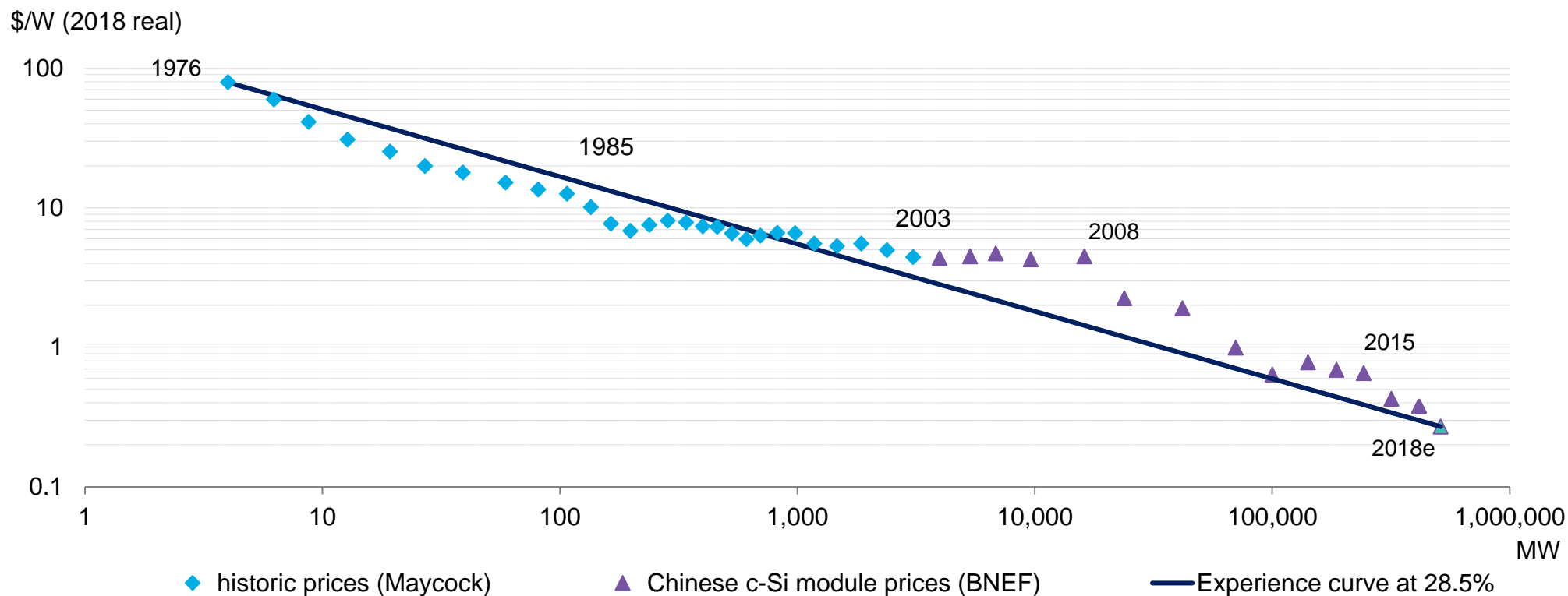
日本の電源構成と予測

2050年までに340GWの再エネが新規導入



Source: BloombergNEF

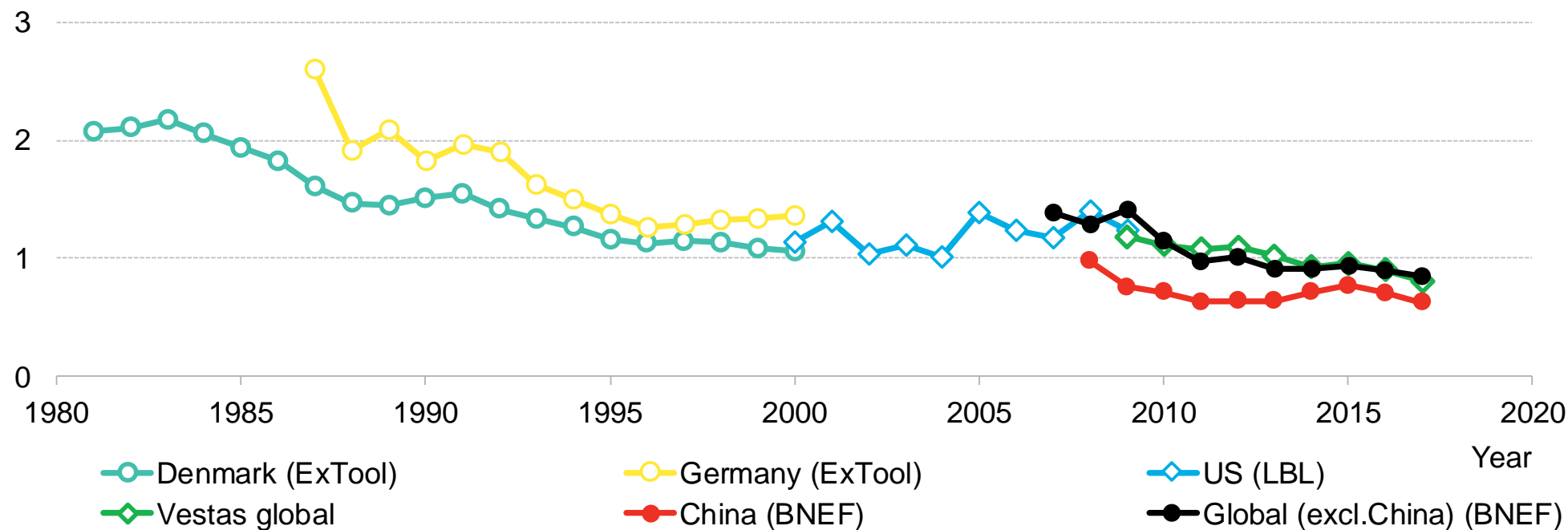
PVモジュール価格は2010年から 83% 低減



Source: BloombergNEF, Maycock

風力タービンは2010年から32% 低減

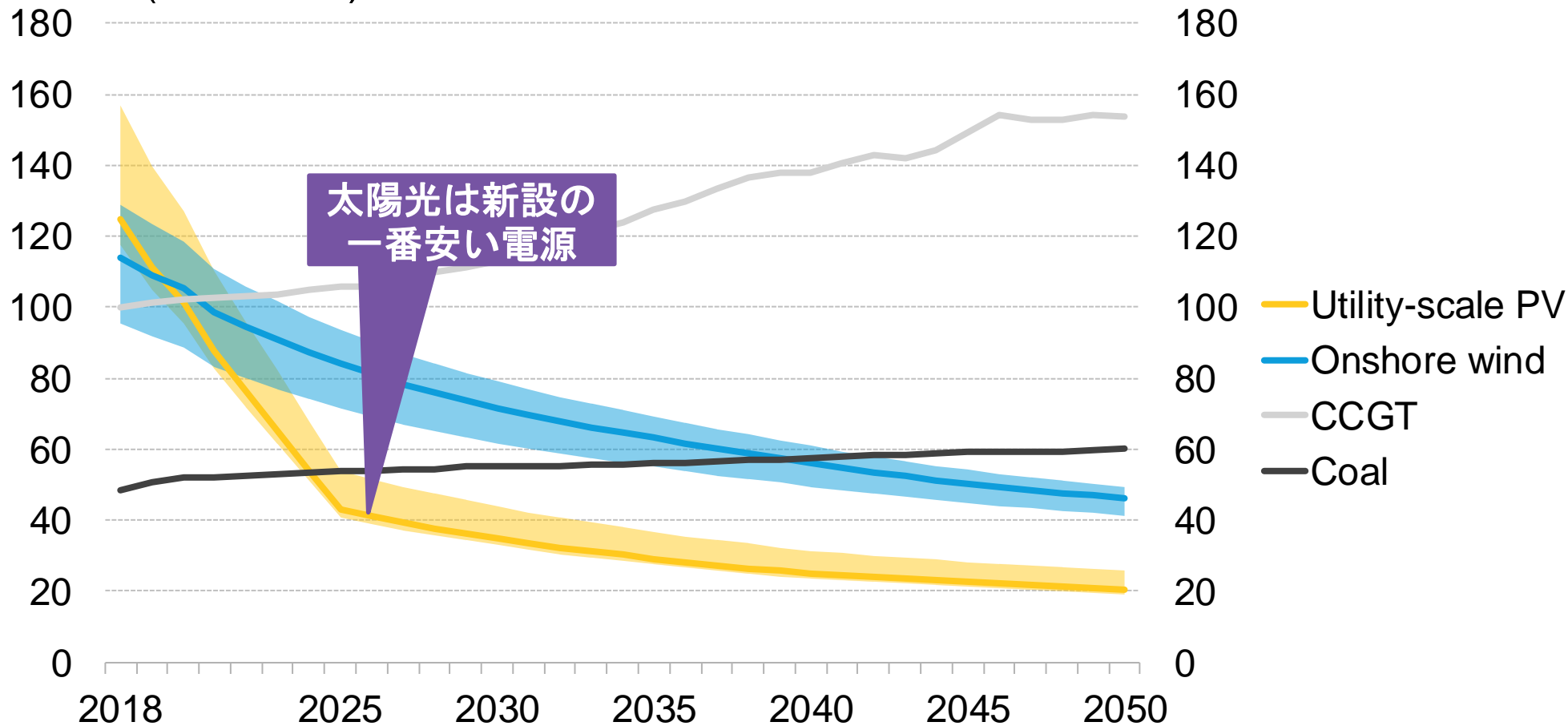
Wind turbine price (2017 mEUR/MW)



Source: BloombergNEF, Lawrence Berkeley National Laboratory (LBL), ExTool study (Neij et al. 2003), Vestas annual reports

日本の太陽光は他の電源よりも安くなる

\$/MWh (real 2017)



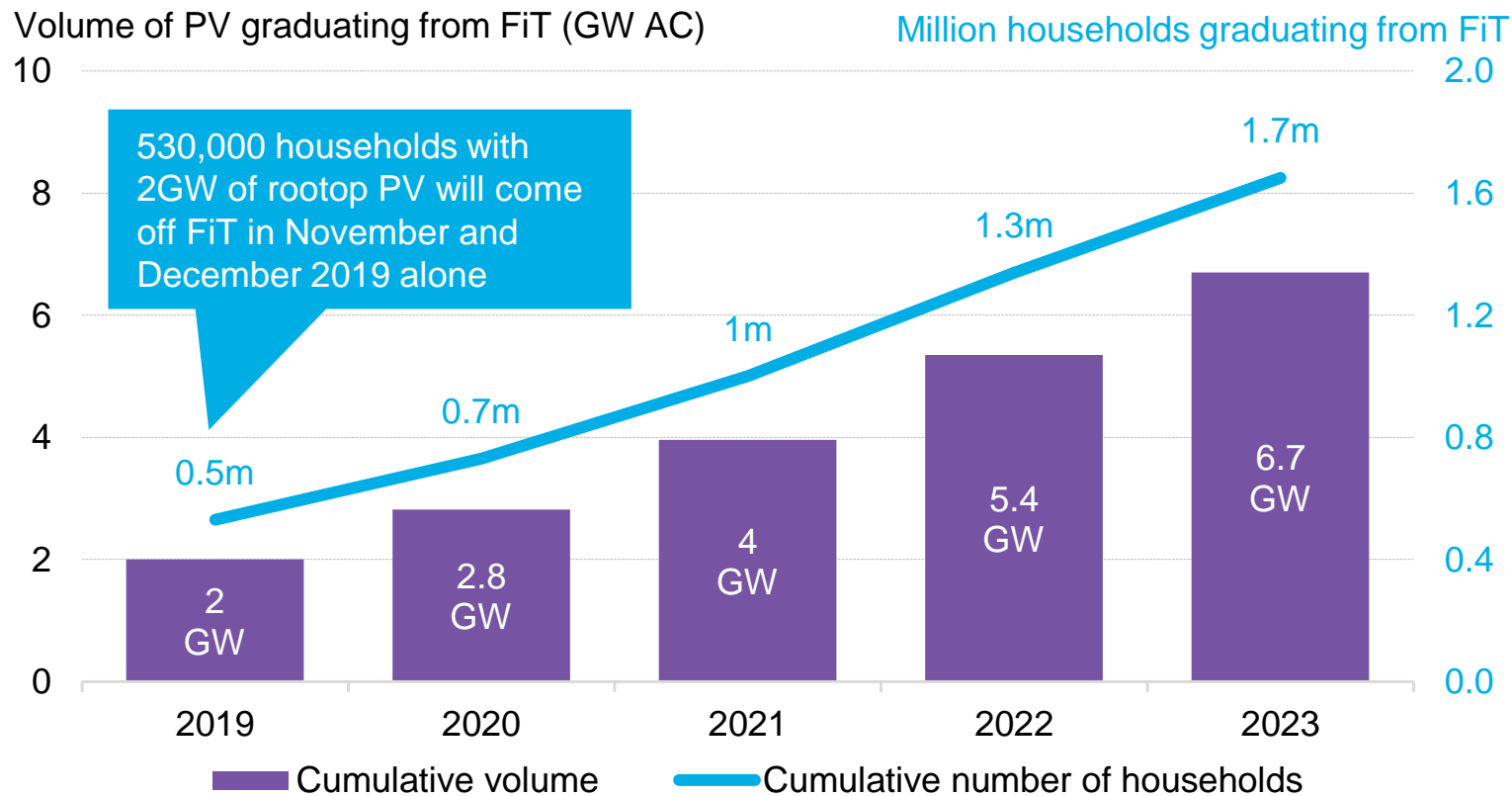
再生エネルギーの選択肢

日本での選択肢

1. 自家発電、自家消費
2. 電気小売事業者からの購入 (再エネ電力)
3. 再エネ証書

オプション 1: 自家発電、自家消費

Cumulative households coming off FiT



Source: BloombergNEF, METI. Note: in previous publications we estimated that 547,000 households with 2.15GW of PV will come off the buyback program in 2019. This was an estimate based on a chart published by METI.

オプション 2: 再エネ電力

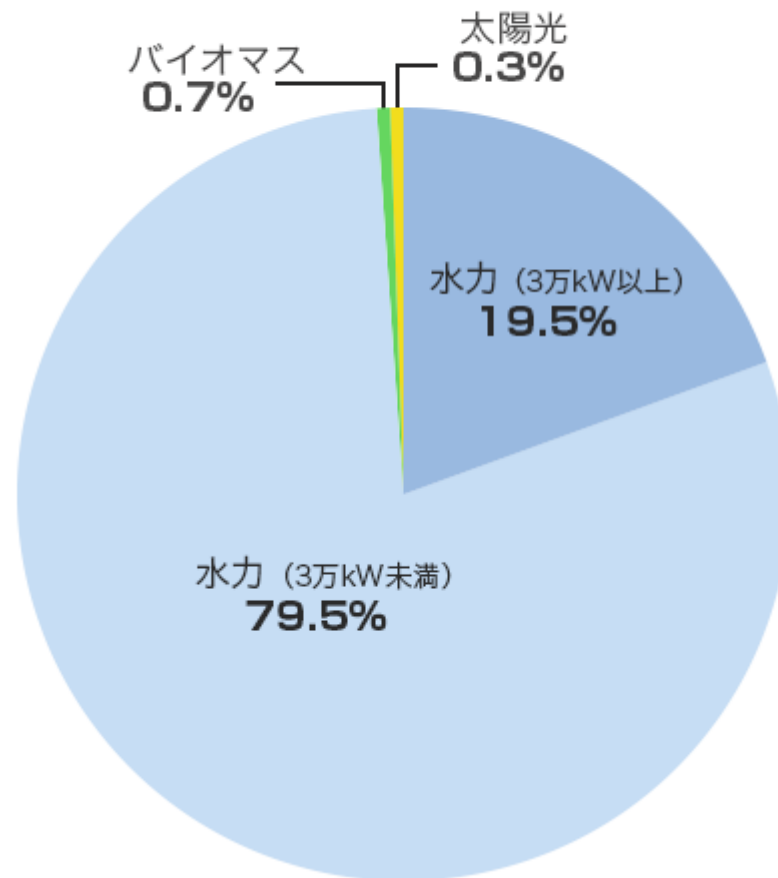
法人（大口契約）向けプラン



アクアプレミアム

アクアプレミアムは、水力100%（CO2フリー）のエコな電気料金プランです。

再エネプレミアムプランの電源構成
（平成30年度 計画値）



オプション 3: 証書

1. グリーン電力証書
2. J-クレジット
3. 非化石価値証書

非化石価値証書

- a) 入札参加者
- b) 電源のトラッキング
- c) 最低入札価格
: 1.3円/kWh

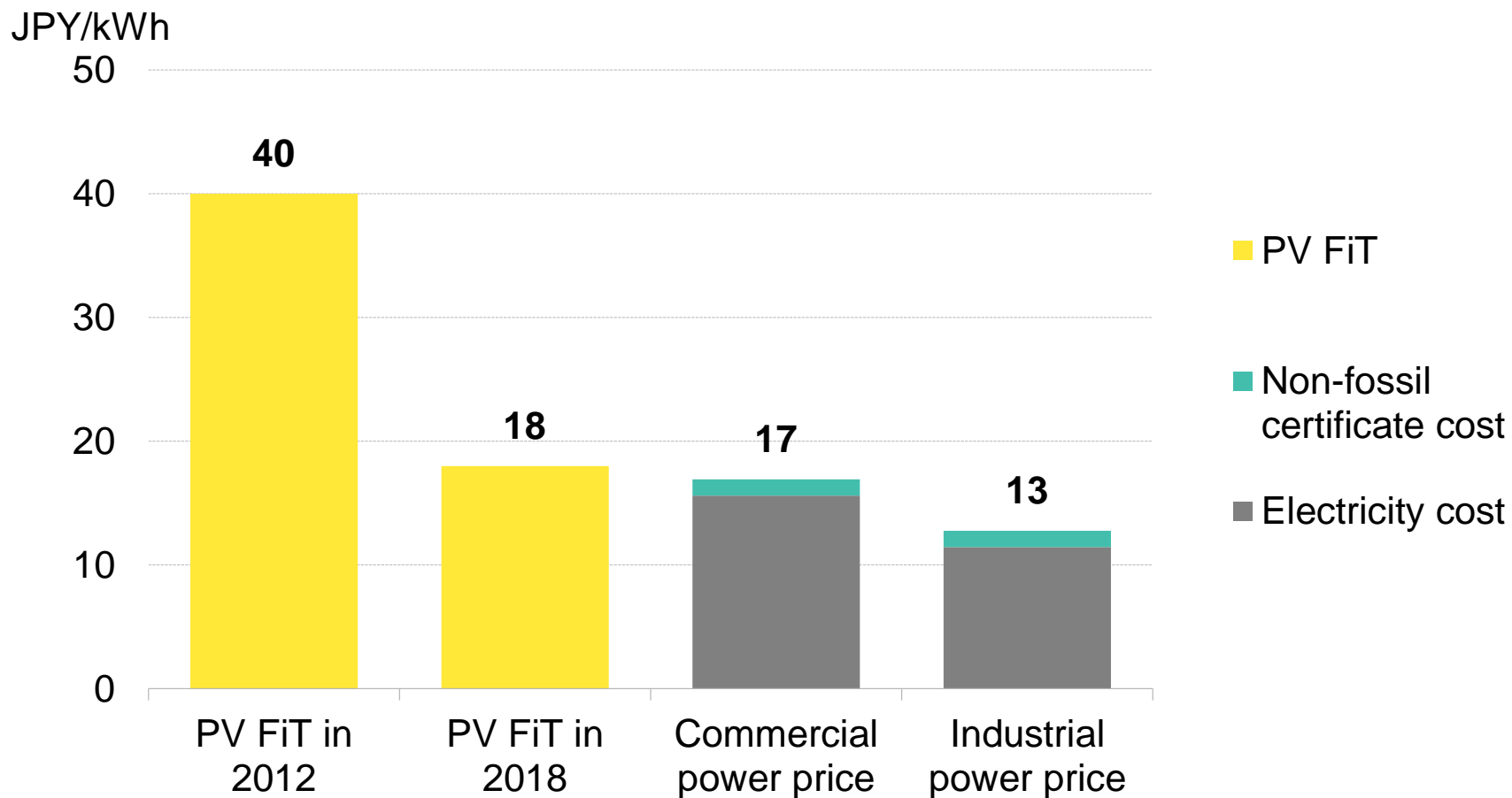
非化石価値証書入札結果



Source: BNEF

変化する経済性

太陽光の固定価格価格と非化石価値購入の比較



Source: BloombergNEF

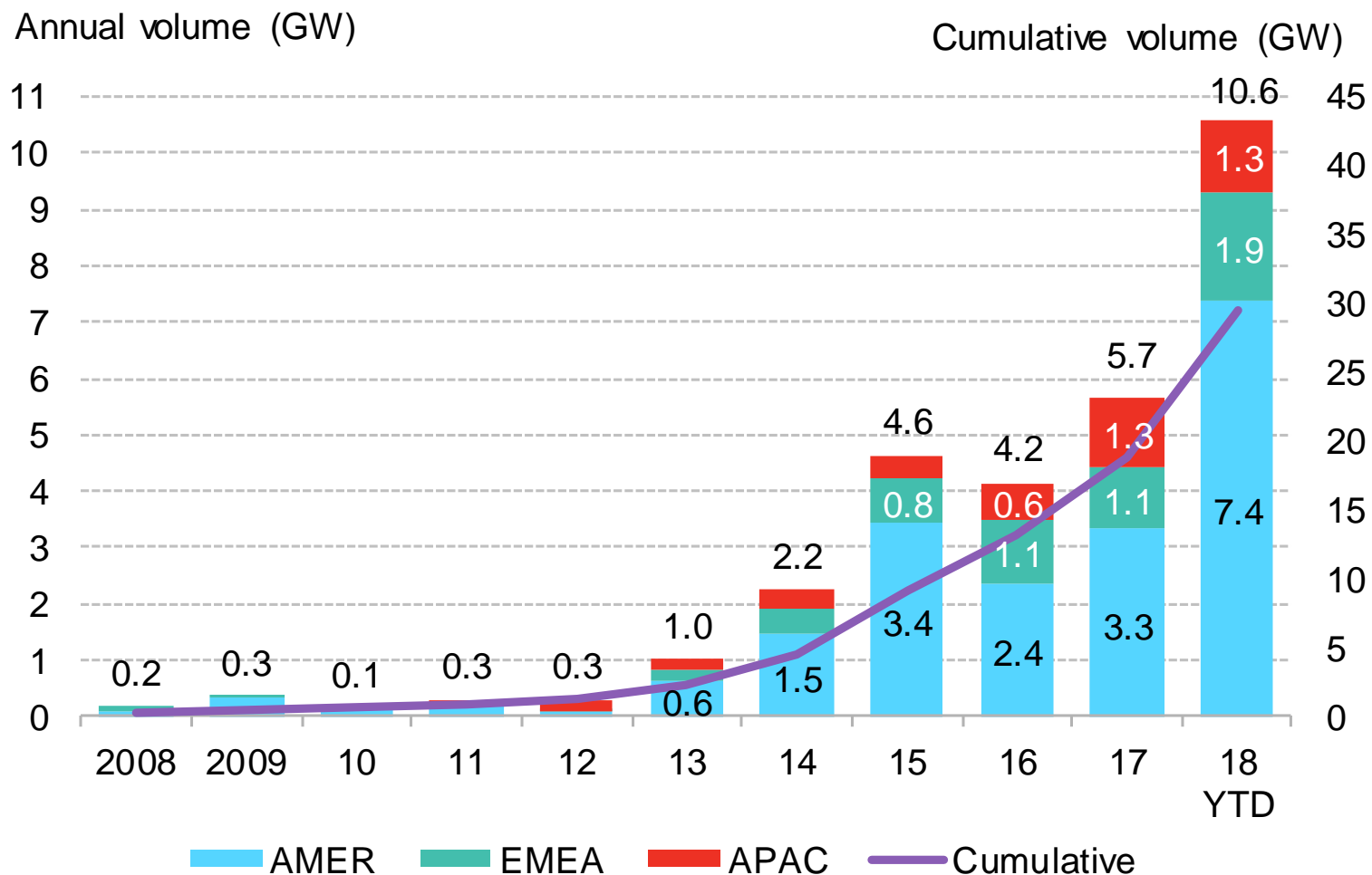
日本での選択肢

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世界の再エネ調達

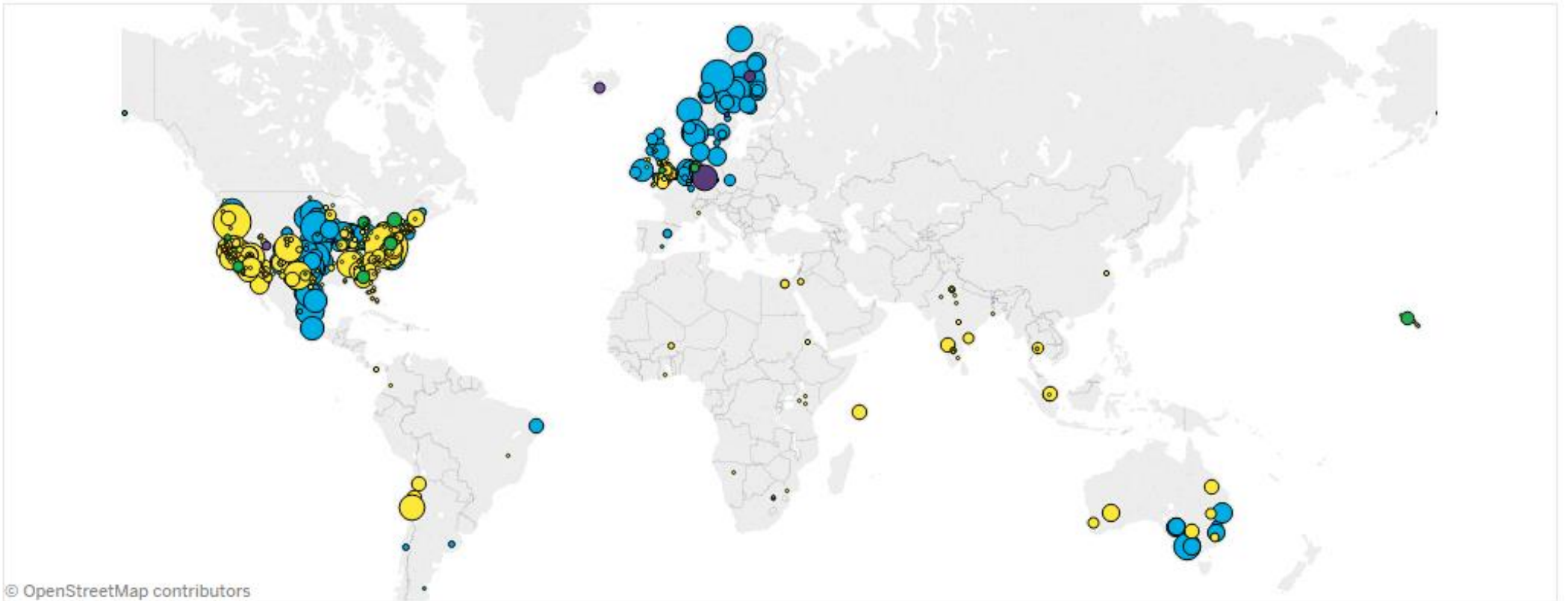
日本にはない選択肢：コーポレート PPA

Global Corporate PPA volumes by region



Source: BloombergNEF Note: All data in this report is up to through November 2018. Volumes are for offsite deals only.

PPA の場所



Source: BloombergNEF Note: Bubble size based on PPA capacity (MW)

ケーススタディ

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Case Study: Walmart Goes All In on Supply Chain

by [Kyle Harrison](#) / 28 Aug 2018

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Executive Summary

Walmart has established a goal of instituting various renewable energy projects by 2030. Perhaps its most significant initiative is its supply chain, which is cumulatively reducing emissions equivalent to Brazil's Project Gigaton. Walmart is significantly scaling up to achieve its goals through this initiative.

Walmart's current pro...

Project Gigaton progress: 0.02BtCO₂e

Source: Bloomberg NEF
Note: Data is from F...

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Microsoft Makes Clean Energy Deal Yet

by [Kyle Harrison](#) / 24 Mar 2018

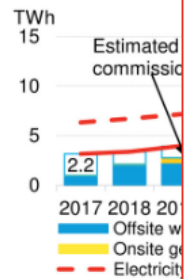
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Executive Summary

On March 22, Microsoft announced a 31-year agreement for 310 MW of clean energy, the single largest deal in the world, structured as a fixed-price power purchase agreement meeting a 60% renewable energy goal as an example of how smaller corporations can...

Microsoft clean energy deal



Source: Bloomberg NEF
Note: Chart does not include and onsite wind and solar

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What Drives Europe's Top Three Corporate PPA Markets?

by [Helen Dewhurst](#) / 15 May 2018

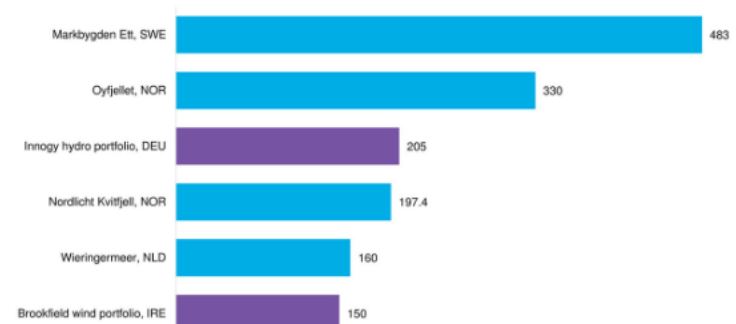
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Executive Summary

The number and volume of power purchase agreements being signed in Europe is on the rise. However, almost all of the recent activity has been in just three countries: the Netherlands, Norway and Sweden. This note examines why these three have emerged as the main centers. It looks at policies, regulations, electricity markets, risk control characteristics, and business environments, and asks whether the trio can remain magnets for PPA deals in the years ahead. (Figure 3 in this note was corrected on May 24, to reflect the fact that at the time of publishing, there had been no new corporate PPAs signed in the rest of Europe in 2018.)

Top 10 European PPA deals by volume (MW) since 2013



By the Numbers

2.7 GW

PPA contracts signed in the Netherlands, Sweden and Norway since 2013: over half of all PPA activity in Europe in the same period.

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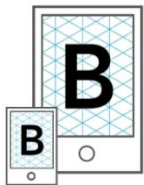
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