AURES II – Auctions for Renewable Energy Support II

Regional Workshop 4

@Strommarkttreffen

Virtual Regional Workshop, 26 June 2020

AURES II – an overview

AURES II – **Au**ctions for **R**enewable **E**nergy **S**upport II

- Supported through Horizon2020 framework
- November 2018 – October 2021
- Coordination: Fraunhofer ISI, Germany
- Consortium: 11 institutions from 6 EU Member States + UK

AURES II – 11 institutions from 7 European countries

AURES II has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 817619

AURES II – an overview

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Objectives:

1. Generate and communicate new insights on the applicability, performance, and effects of **specific auction designs**
2. Provide **tailor-made policy support** for different types of auction applications
3. Facilitate **knowledge exchange** between stakeholders

AURES II – Inform the discussion on renewable energy auctions

- 12 country case studies
- AURES II Auction Database
- Policy Briefs
- Reports on current topics
- Research papers
- Stakeholder workshops
- Country case cooperation

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Newsletter: http://eepurl.com/gd42zz

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Impact of Covid-19 on RES Auctions

Fabian Wigand, Guidehouse/Navigant

Virtual Strommarkttreffen / Region AURES II Workshop
26.06.2020

Impact of Covid-19 on RES procurement & project realization

Reduced power demand

2020 RES target fulfilment

Supply chains

Permits

Risk penalties

- Strong decrease in short-term power demand, high mid-term uncertainty --> reduced power demand and tighter budgets could reduce new RES auction volumes
- 2020 RES targets: Countries previously at risk of falling short of their 2020 target might now not see the need for additional RES action
- Short-term supply chain disruptions (although may RES component sites in Europe continue to operate)
- Delays of permits by planning authorities
- Risk missing project realization deadlines, face penalties

EU Member State action on RES project realization deadlines

Industry voice

Extensions

Postponements

- Many industry associations call for deadline extension, although in Spain it asks for sticking to original deadlines
- Extension of realization deadlines:
  - Germany (upon proof of causes)
  - France
  - Greece (by 6 months (until end of June) or 4 months (until end of year)
- Postponement of auctions
  - France (av. 2 months)
  - Ireland (1 month)
  - Portugal (paused)
  - Slovakia (cancellation)
  - But: Greece and Netherlands sticked to schedule

Covid-19 increases financing and capital market risk

Country risks	Long-term economic challenges and public debt downgrading country ratings
Policy risks	Postponing auctions, retroactive policy changes
Market risks	Lower and fluctuating wholesale prices emphasise need for state revenue stabilisation
Capital market risks	Decreased availability and increased cost of capital for RES project finance, devaluation of assets inhibit balance sheet financing
Financing opportunities	Pot. access to government-backed guarantees & loans through economic relief packages

How to adjust the RES auction design

Extending deadlines

→Extending realization deadlines of awarded projects and for upcoming auctions, tailored to local circumstances, automatic and uniform

Changing procurement

→Allowing for longer award periods & increasing digitalization of auctions and permitting procedures

Schedules & volumes

→ Adjusting auction schedules but if possible avoiding auction volume revisions (unless competition significantly reduced)

Achieving the Renewable Energy Policy Objectives - Evidence from European Auctions

25th June 2020 – Online Workshop

Ann-Katrin Hanke & Vasilios Anatolitis

Forthcoming Research Paper

Identification of RES policy objectives based on national laws

Are objectives positively or negatively correlated?

	Effectiveness	Cost efficiency	Support cost efficiency	Green growth	Security of supply	Actor diversity
Effectiveness						
Cost efficiency	+					
Support cost efficiency	++	++/-				
Green growth	o	o	-			
Security of supply	+	-	-	o		
Actor diversity	o	–	–	+	+	

Table 2: Analysis of relation between the aforementioned objectives. *Legend: ++ = complementary, + = rather complementary, o = neutral, – = rather contrary, –– = contrary*

Which design elements help to achieve objectives or are hindering their fulfillment?

Design element	Effectiveness	Cost efficiency	Support cost efficiency	Green growth	Security of supply	Actor diversity
Volume of auctioned product	+	o	o	+	+	+
Multi-technology	+	+	+/-	o	-	-
Financial prequalification	+	o	-	o	o	-
Material prequalification	+	o	-	o	+	-
Ceiling price	-	o	+	o	o	-
Floor price	+	-	-	o	o	+
Multi-criteria	o	-	-	+	+	+
Quotas	o	+	-	o	+	+
Bonus/Malus	o	+	-	o	+	+
Favourable treatment for specific actors	-/o	-	-	+	-	+
Penalties	+	o	-	o	o	-

Table 3: Analysis of the impact of selected auction design elements on the objectives. *Legend: + = positive impact, o = no impact, – = negative impact*

What are the countries‘ objectives?

	DK	EE	FI	FR	DE	GR	HU	IT	LT	LU	NL	ES	UK
Effectiveness	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓
Cost efficiency	✗	✓	✗	✗	✓	✗	✓	✓	✓	✗	✓	✗	✗
Support cost efficiency	✗	✗	✗	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓
Green growth	✗	✗	✗	✓	✗	✓	✓	✗	✗	✗	✗	✗	✗
Security of supply	✓	✓	✗	✓	✗	✓	✓	✗	✓	✓	✗	✗	✓
Actor diversity	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗

Table 4: Overview of identified objectives of different EU countries

Most countries follow coherent strategies in defining objectives and design

Did countries follow consistent strategies when defining their objectives?

Aligned	Ambiguous	Non-aligned	Neutral
Denmark	France	Estonia	Finland
Italy	Germany	Hungary	
Lithuania	Greece		
Luxembourg			
Netherlands			
Spain			
United Kingdom			

Table 6: General tendency of the relation between identified objectives of different EU countries

Did countries design their auctions according to their objectives?

Suitable	Improvable
Denmark	Estonia
Finland	Germany
France	Hungary
Greece	
Italy	
Lithuania	
Luxembourg	
Netherlands	
Spain	
UK	

Table 7: General performance of policy designs of different EU countries based on designated objectives

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Auctions and energy communities

Risks, design options, and international experiences

Ana Amazo – Senior Consultant at Navigant/Guidehouse
4th AURES II Regional Workshop & Strommarkttreffen Webinar

#1 Energy communities can take many forms and strive for different objectives

No widely accepted definition

- Core elements identified, but do not apply to all energy community actors:
  - Local proximity
  - Local (financial) ownership vs. participation in project development
  - Focus on community benefits

Definitions are important in targeting measures to energy communities

- Definitions can reduce the potential for non-intended use but implementation is challenging: compliance evaluation can be cumbersome
- Broader definitions can be alternative to defining specific actors/business models for community actors
  - If targeting specific business models is the right fit, an option is to support outside the auction

Actor-based ("business model")	Community involvement criteria (independent of actor/business model)
Germany's citizen energy companies in wind auctions (in 2017)	France's bonus for participatory funding

#2 Measures within the auction can facilitate participation but come at the compromise of market distortion

	Measures inside the auction		
	Other conditions for participation	Bonus or quota	Different pricing rule
Country example	Preferential auction rules in Germany	Citizen participation bonus in France	Uniform pricing rule in Germany
Financial risk			
Allocation risk	✓	✓	
Price risk			✓
New-bidder risk			
Non-compliance risk	✓		
Non-realization risk			

Challenges

Measures can have adverse effects on auction outcomes

Preferential auction rules in Germany → auctioning of projects in different development stages increases non-realization risk

Bonus or quota → auction price level higher

#3 Measures outside the auction interfere less with the auction but show limited impact against actor consolidation trend

	Measures outside the auction	
	Financing for project pre-development	"Market building" measures (open to all bidders)
Country example	Guarantee Fund in Denmark	Several countries introducing auctions
Financial risk	✓	
Allocation risk	✓	
Price risk		
New-bidder risk		✓
Non-compliance risk		
Non-realization risk		

Challenge

Limited effectiveness in reversing a trend towards overall actor consolidation

Guarantee Fund in Denmark

Community energy projects have not yet participated in past auction rounds (Caveat: limited experience due to few rounds)

Similar measures promoting community energy actors → "option-to-purchase" and "value-loss" scheme

#4 Exempting energy communities and coupling support to auction result can be a compromise, but should be done carefully

Exemptions from auction is at odds with overall transition to auction-based support schemes

→ "Accession mechanism" (granting access to the auction outcome) lowers risks of participating and winning an auction and increases compatibility with auction outcome

Country examples

Spain: accession mechanism with quota, first-come, first-served allocation (in discussion)

Greece: Since 2019, admin. tariff for solar projects: average of past 3 rounds * 1.05 (multiplied by 1.1 for energy community projects).

Considerations

Finding an appropriate legal definition for RECs to qualify for the exemption is a challenge

Project-based definitions (size) provide incentive to develop small projects, instead of larger, more cost-effective projects

Five things to remember

Energy communities can take many forms and strive for different objectives

Measures within the auction can facilitate participation but come at the compromise of market distortion

Measures outside the auction interfere less with the auction but show limited impact against actor consolidation trend

Exempting energy communities and coupling support to auction result can be a compromise, but should be done carefully

Opening of community turbine – Fintry, Scotland (Source: Peter Skabara – Community Energy)

Thank you

The report was prepared under the AURES II project funded by the EU Research Program Horizon 2020.

Download the report here:

http://aures2project.eu/wp-content/uploads/2020/02/AURES_II_D4_2_energy_communities.pdf

Ana Amazo – Senior Consultant at Navigant/Guidehouse

4th AURES II Regional Workshop & Strommarkttreffen Webinar

Empirical Analysis of the Impact of Auctions on Local Supply Chains

Task 4.2

AURES II - Regional Workshop 4 / Strommarkttreffen, 26 June 2019

Craig Menzies

Head of the Energy Department, Factor

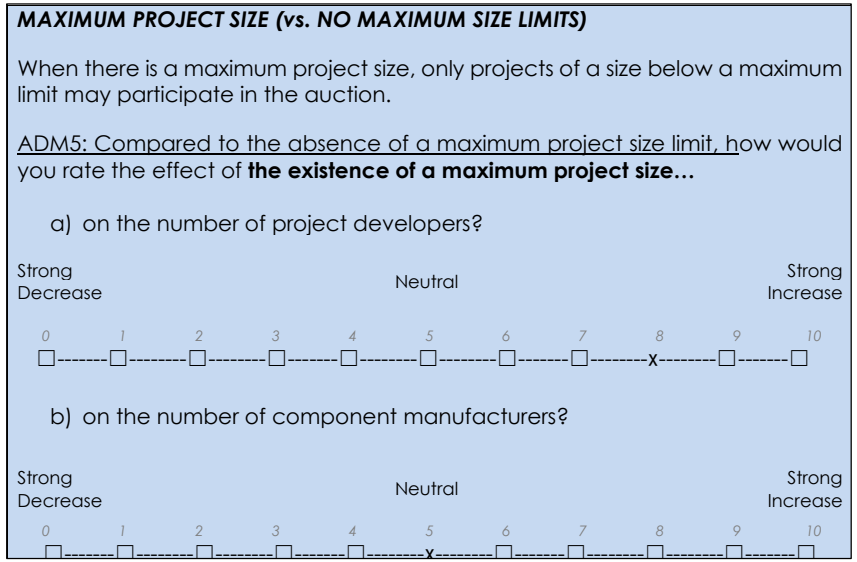
Objective and Methodology

Objective: To estimate the **perceived impacts of auctions, design elements & context conditions** on the **market concentration** (number and diversity) of project developers and component manufacturers.

Methodology: An **Expert Elicitation-based approach** with key experts from the RES sectors of **ES, UK, PE & SA**. Focus on project developers and component manufacturers of **4 technologies** (on-shore wind, off-shore wind, solar PV and CSP).

Interview Structure:

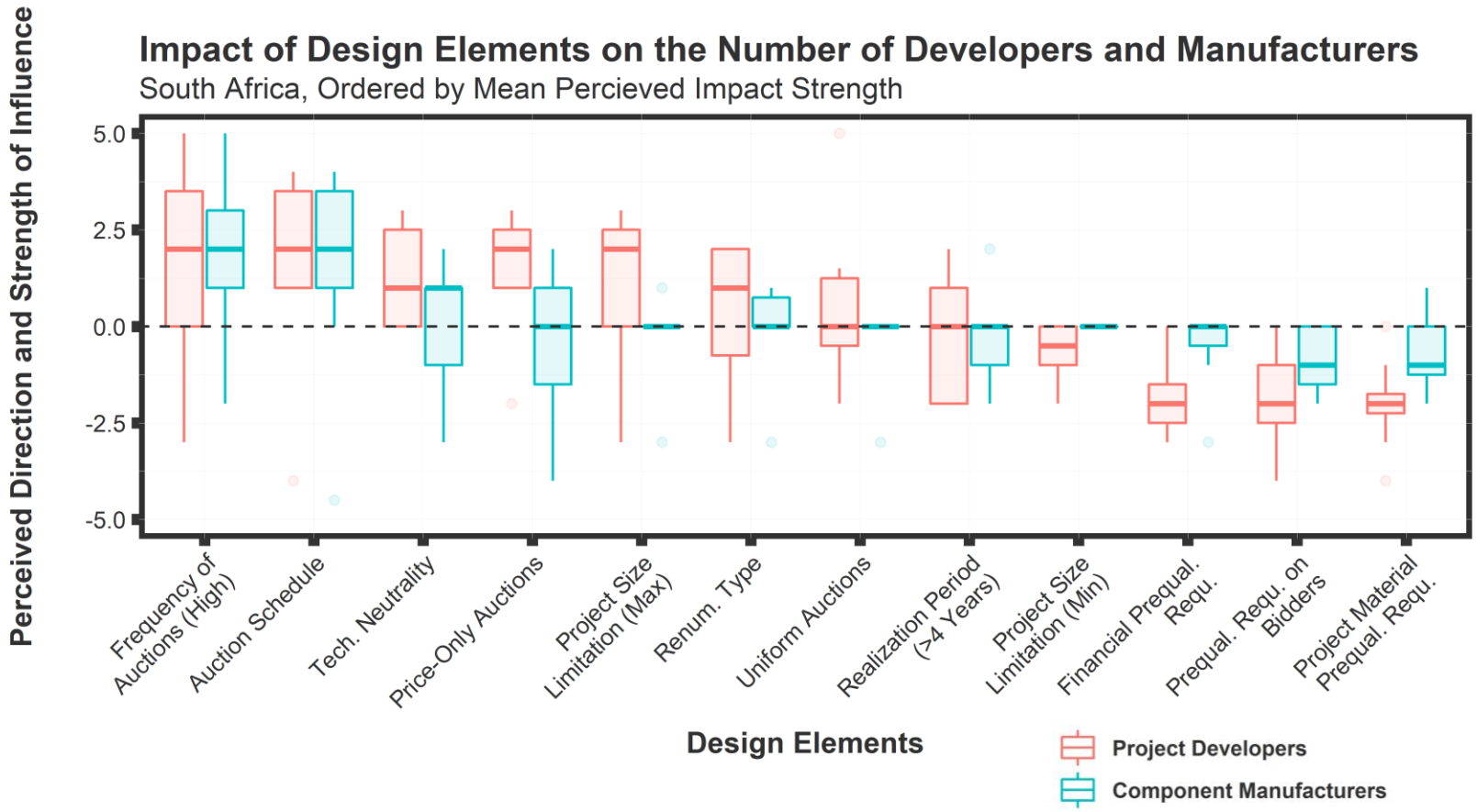
- **Expert Self-Assessment** ⇨ *for validation and calibration*
- **Context Factors** ⇨ *to evaluate the impact of contextual factors*
- **RE Auction Design Elements** ⟹



Preliminary Results for South Africa (I)

The Effect of Design Elements on the **NUMBER** of Developers and Manufacturers:

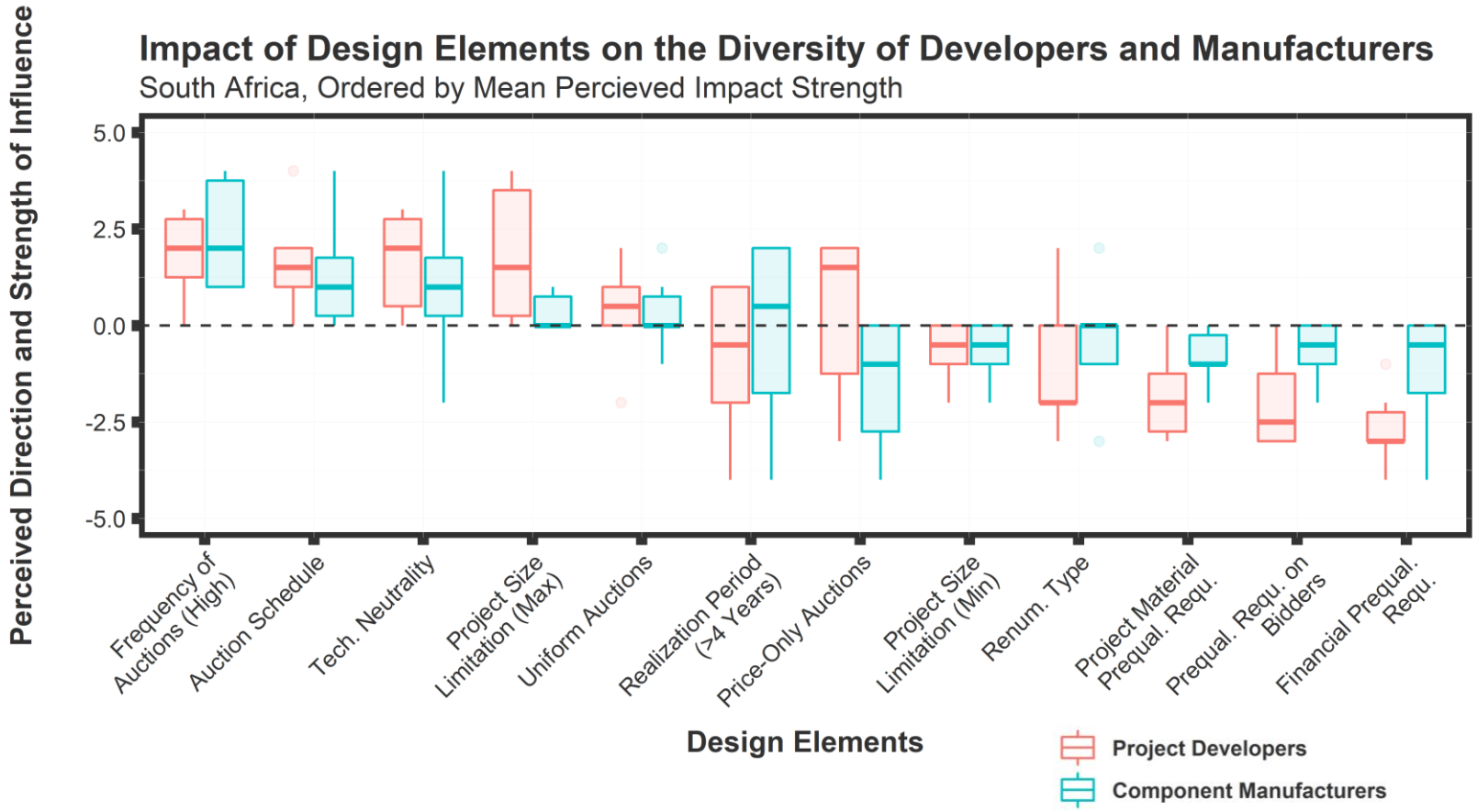
- A **transparent auction schedule**, as well as **frequently implemented auctions**, were perceived to be determinants for a **high number** of developers and manufacturers.
- **Prequalification requirements (**of all kinds) are perceived to **reduce the number** of developers and manufacturers.



Preliminary Results for South Africa (II)

The Effect of Design Elements on the **DIVERSITY** of Developers and Manufacturers:

- At the extremes, the **diversity** and **numbers** (of developers and manufacturers) are affected by the **same design elements** and in **similar ways.**
- **Impacts on diversity** are perceived to be quite strong for project developers, especially via **prequalification requirements**.



Preliminary Discussion

The **full impact** of auctions (versus administratively-set support) on **market concentration** is perceived to be **generally balanced (on average).**

Some **common patterns** can be observed **across case countries.** However, certain differences also exist

=> e.g., in Peru, the impact of auction design elements is perceived to be more negative overall

The **relative importance** of auctions, design elements and context conditions appears to be **heterogeneous** for the four case countries, according to the elicited expert judgments.

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under grant agreement no. 817629

Renewable energy revolution in Poland

U-turn in the Polish RES auctions system since 2018

2005 to 2016 - 70-fold expansion of wind capacity

10 GW

Installed renewable capacity in Poland by mid-2020

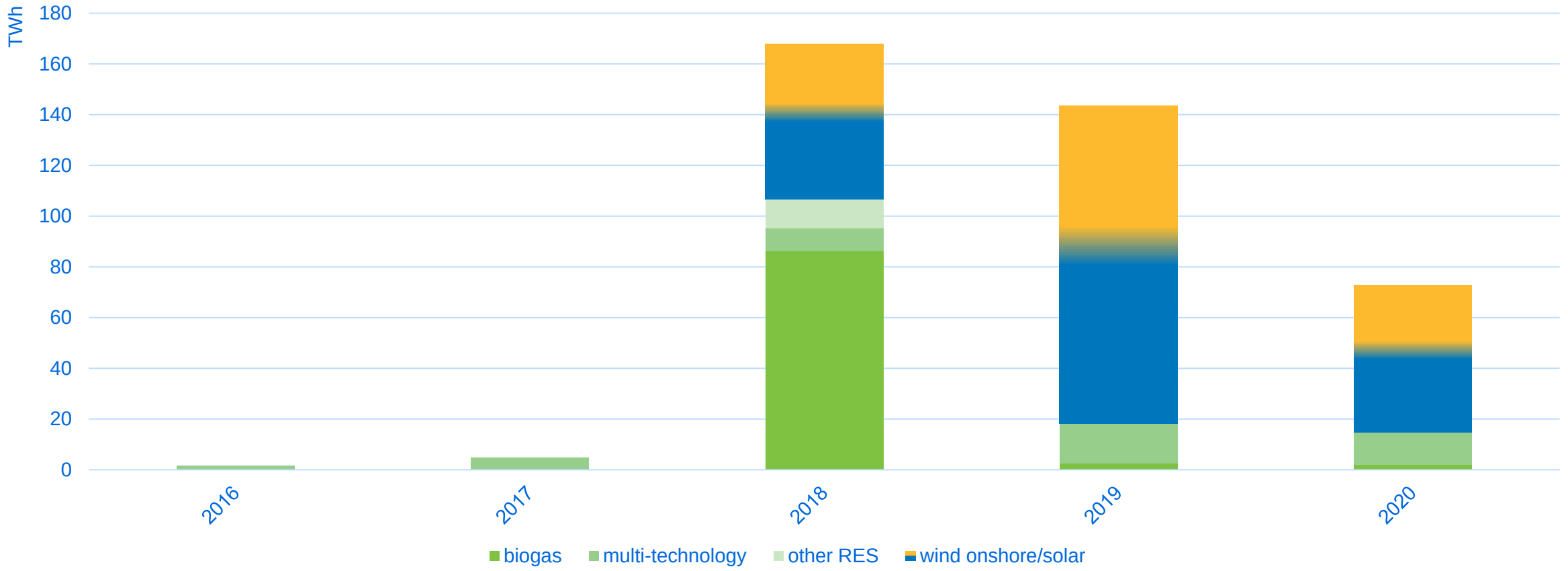
65%

Onshore wind share in installed RES capacity at the end of 2019

Sources: PWEA, ICIS

Planned RES auction volumes in Poland

Auction baskets for new installations

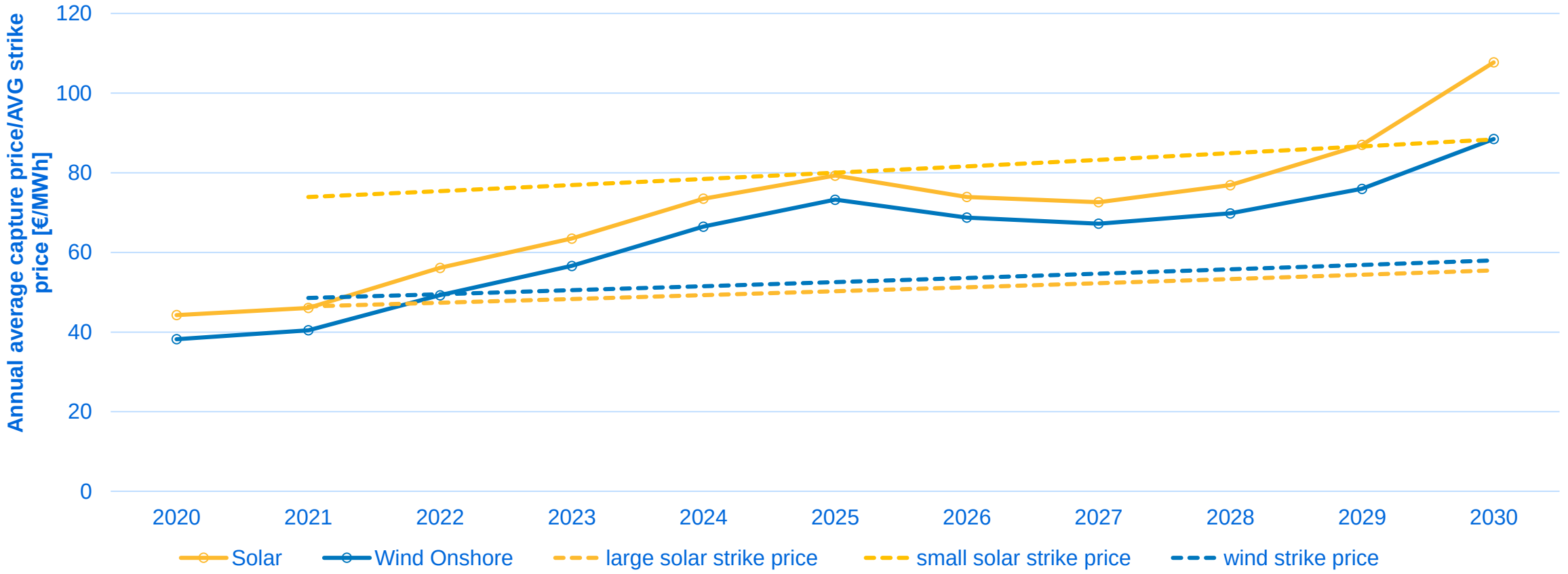


Further changes in 2020

- Relaxing of 10H rule for onshore wind planned from 2021
  - Amending Act on Investments in Wind Power Plants
- Extension of the auction system from mid-2021 to 2026
  - RES act amendment planned in September 2020
- Anti-Crisis Shield 1.0
  - Up to 12 months extension to start generating RES power to receive subsidy
- Offshore wind draft published in January 2020
  - Law adoption planned by the end of 2020

Strike prices below market prices

Power Horizon capture prices forecast compared to 2019 auctions strike prices



Instead of conclusion

- **Open questions:**
  - Why the renewable U-turn in Polish policies?
  - Why large onshore wind and solar goes into auctions when being on the market seems more profitable?

Thank you

Indo-German Energy Forum Support Office

Supported by:

Federal Ministry for Economic Affairs and Energy

on the basis of a decision by the German Bundestag

AURES II & Strommarkttreffen

India's first 24/7 RE-tender linking renewables with energy storage solutions

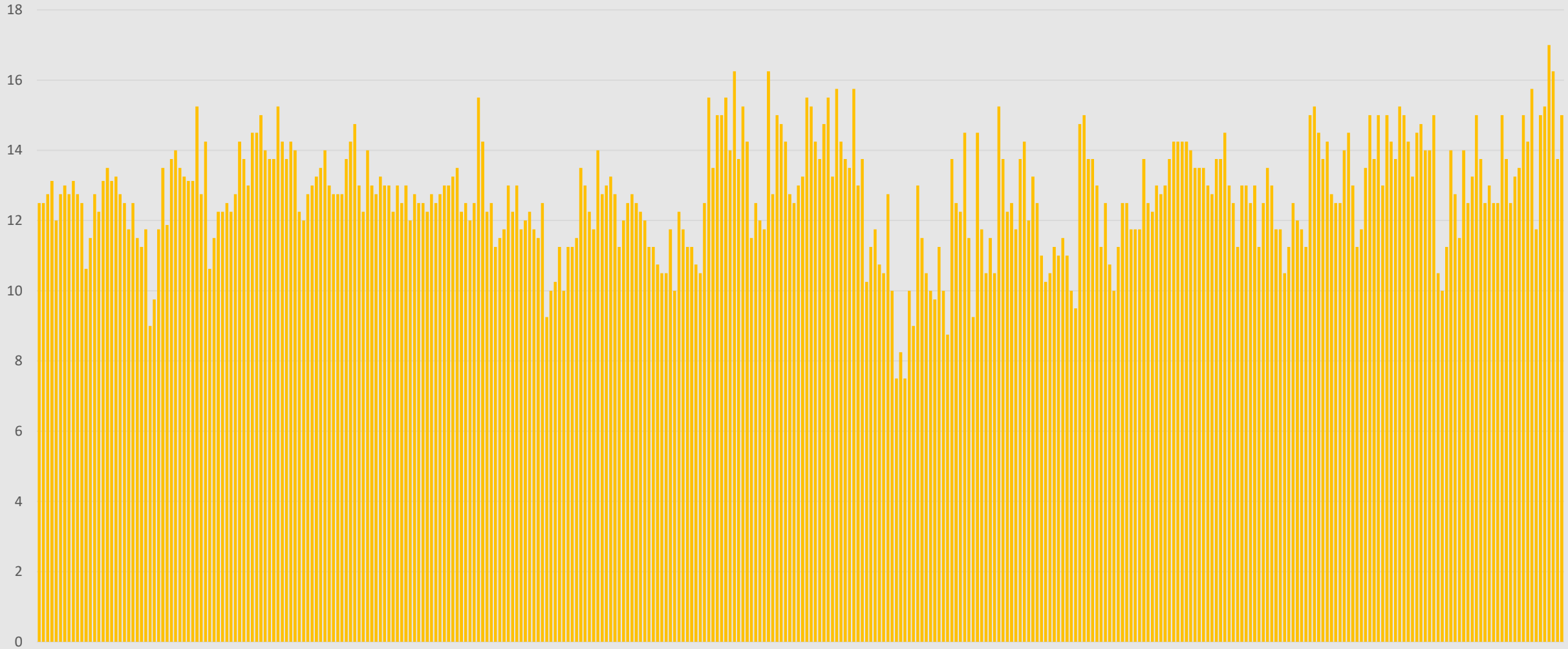
Tobias Winter, GIZ India, New Delhi

26 June 2020

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

365 days of solar generation in India

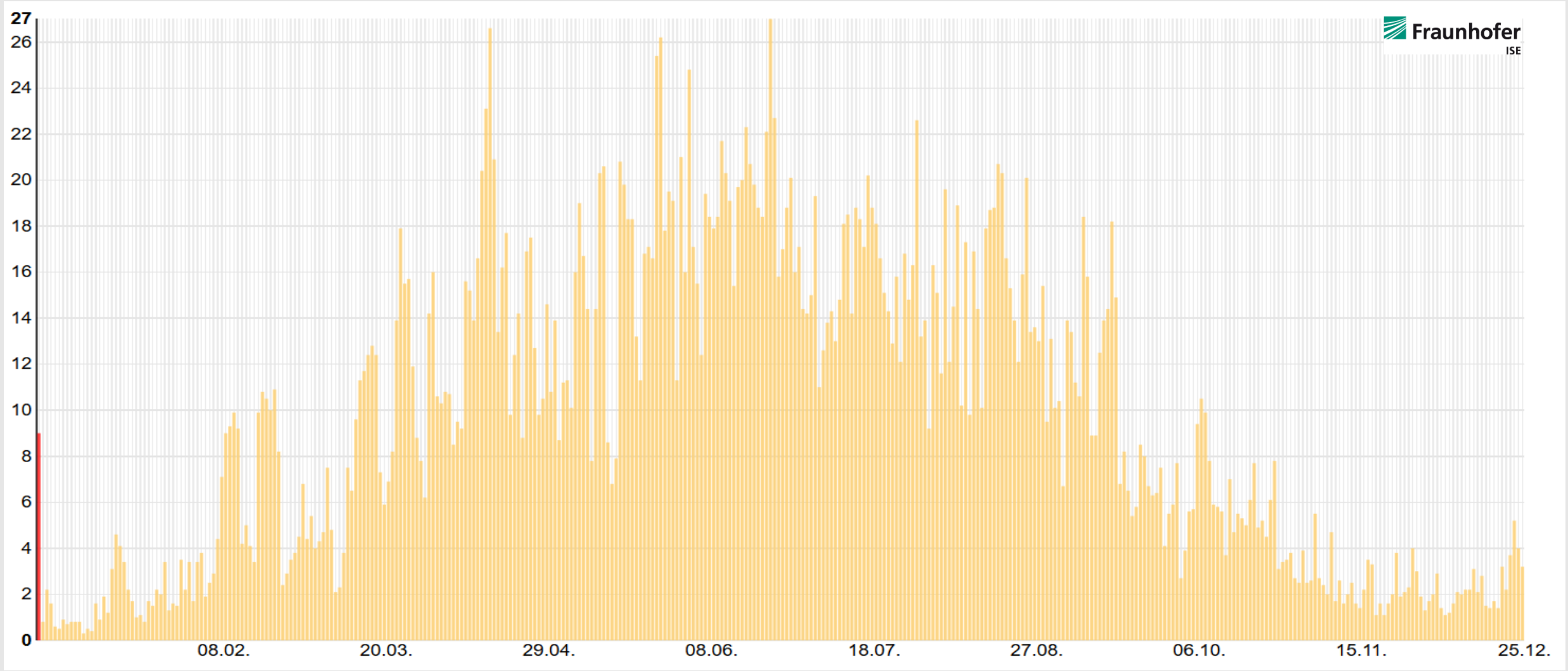
MWp generation, 365 days



Source: https://carbontracker.in based on data from MERIT India, last accessed 20th Oct. 2019

Daily generation from solar in Germany 2019 (in %)

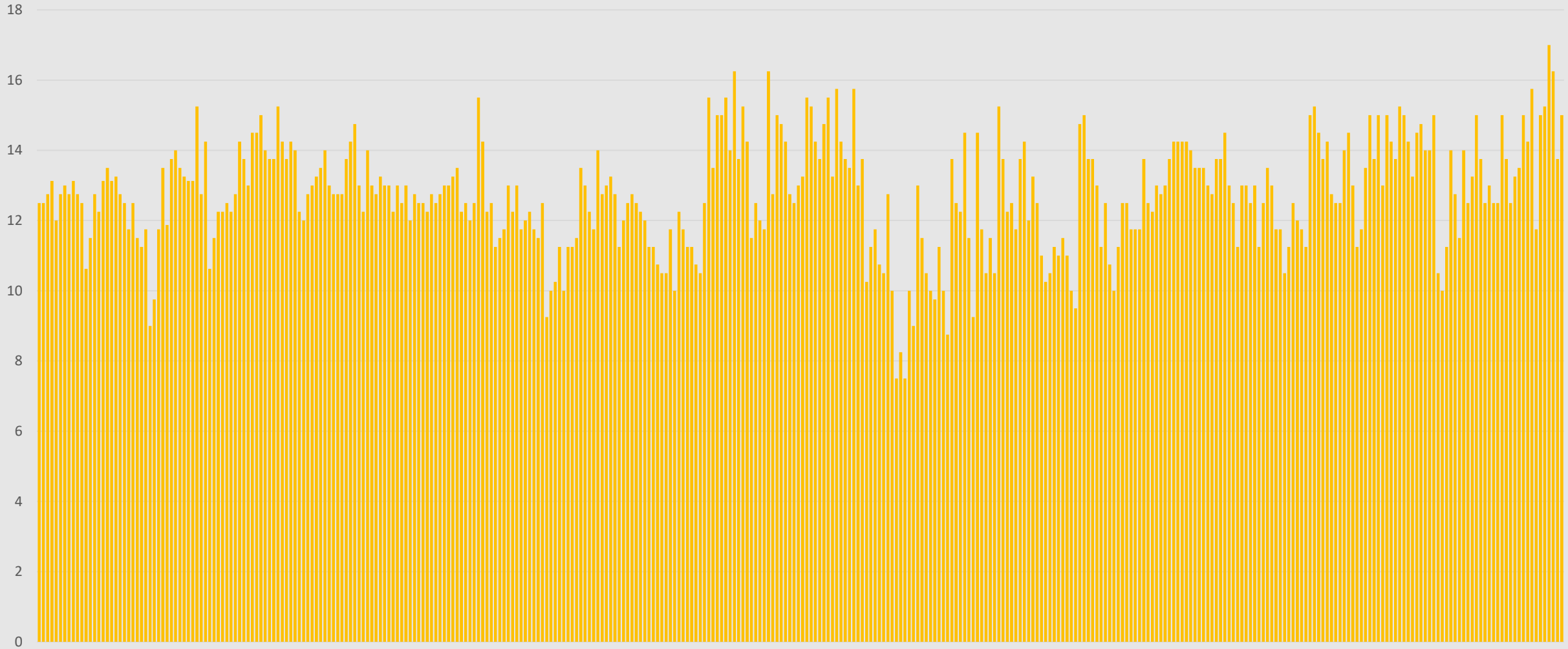
Share of total electricity "consumption", 365 days



Source: https://www.energy-charts.de/ren_share.htm?source=solar-share&period=daily&year=2019 2019

365 days of solar generation in India

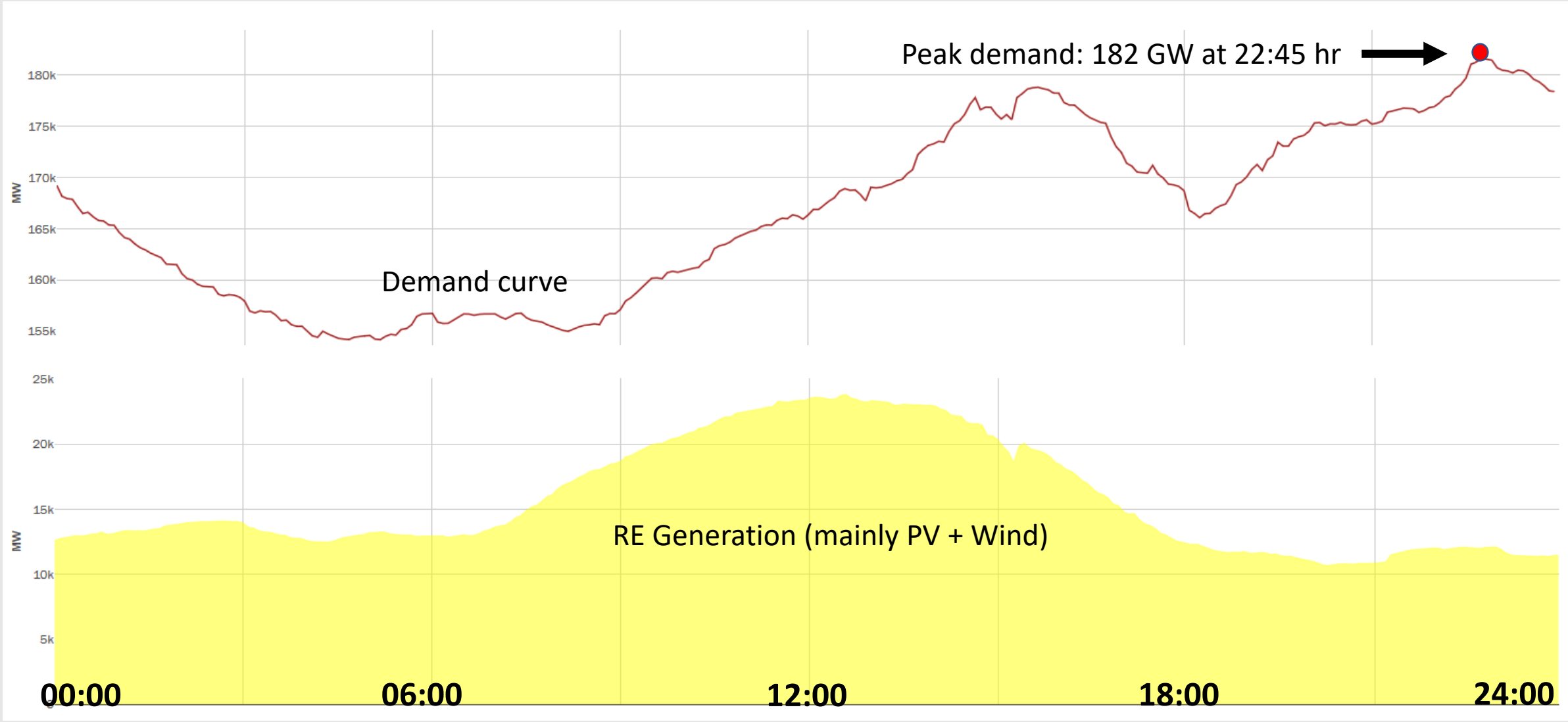
MWp generation, 365 days



Source: https://carbontracker.in based on data from MERIT India, last accessed 20th Oct. 2019

Electricity generation from renewables in India

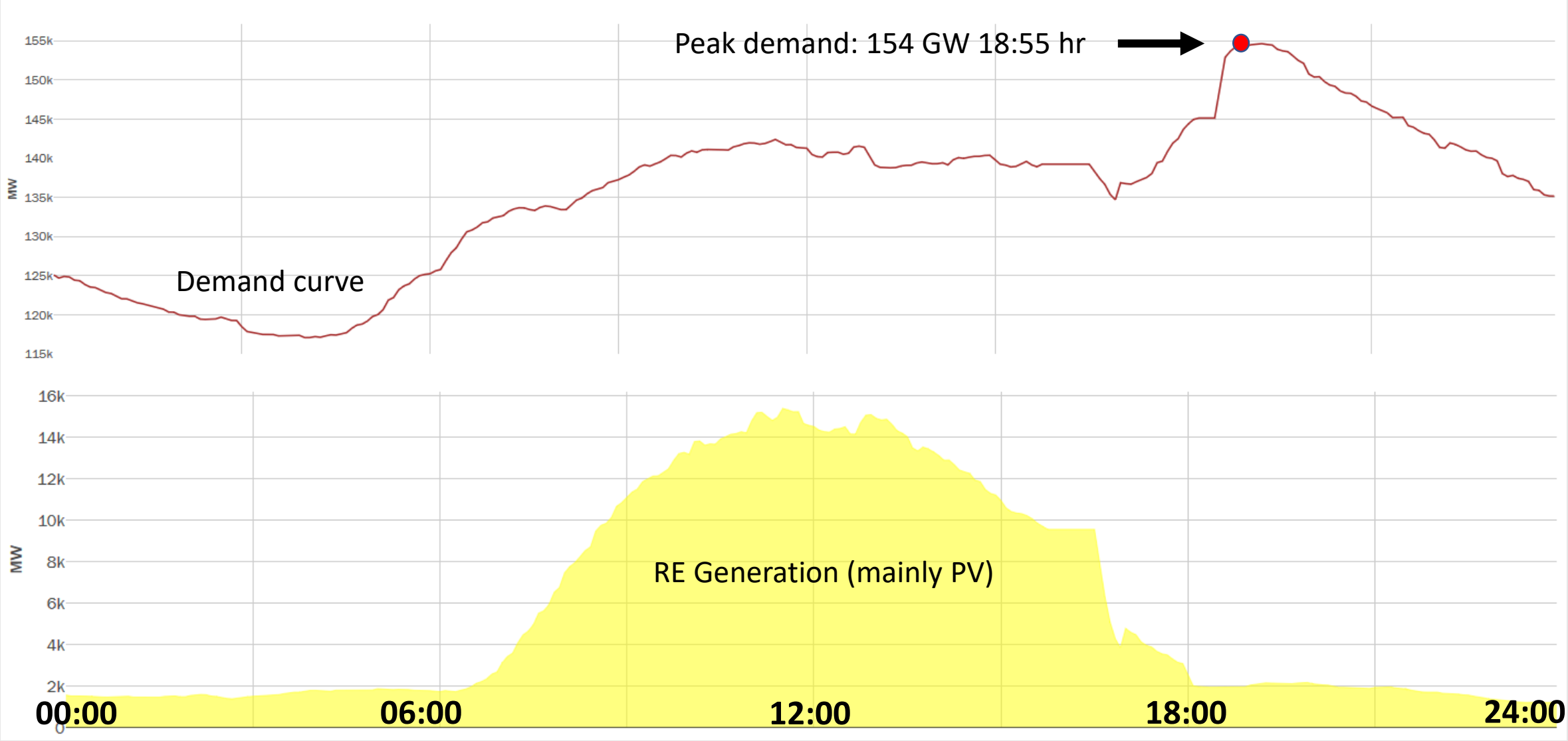
Peak demand of the year 2019 happened on 4th June 2019



Source: https://carbontracker.in based on data from MERIT India, last accessed 16th June. 2020

Electricity generation from renewables in India

9th October 2019 – lowest generation of electricity from all RE in 2019



Source: https://carbontracker.in based on data from MERIT India, last accessed 16th June. 2020

Price for utility scale power discovered through reverse auction

Large scale RE is able to compete with coal. But can RE deliver during peak demand at night?

Avg. Coal
~5 EURct./kWh

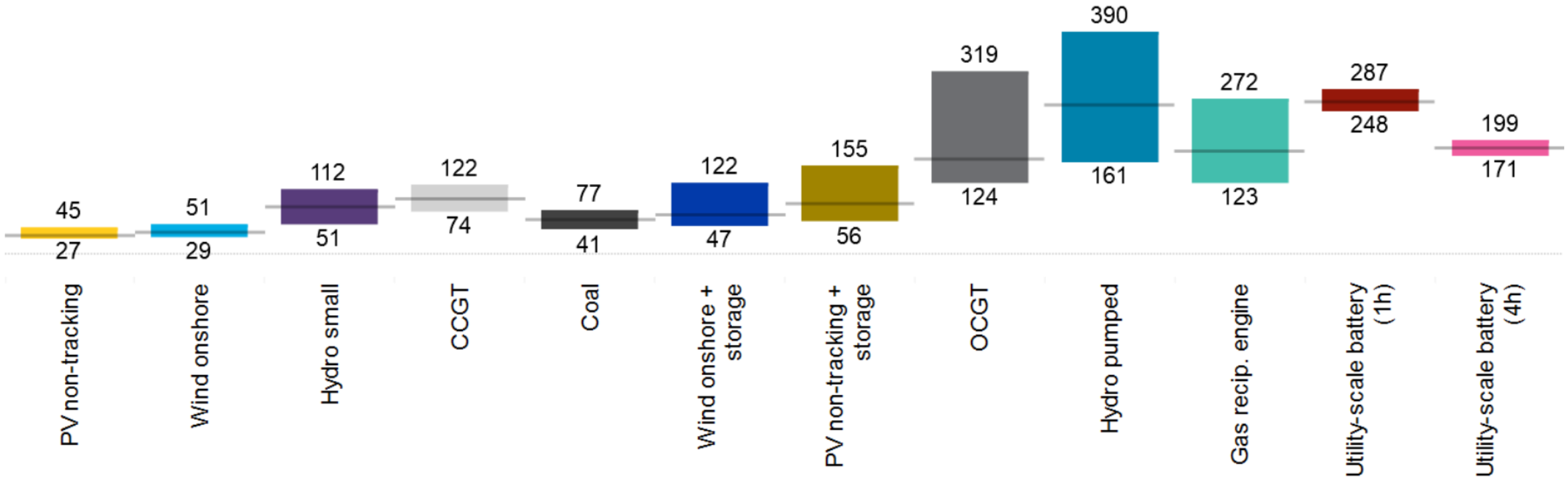
Lowest bid PV
~3 EURct./kWh

Lowest bid Wind
~3 EURct./kWh

Sources: https://posoco.in/reports/as3-details/, www.pixabay.com

Levelised cost of electricity in India (nominal $/MWh)

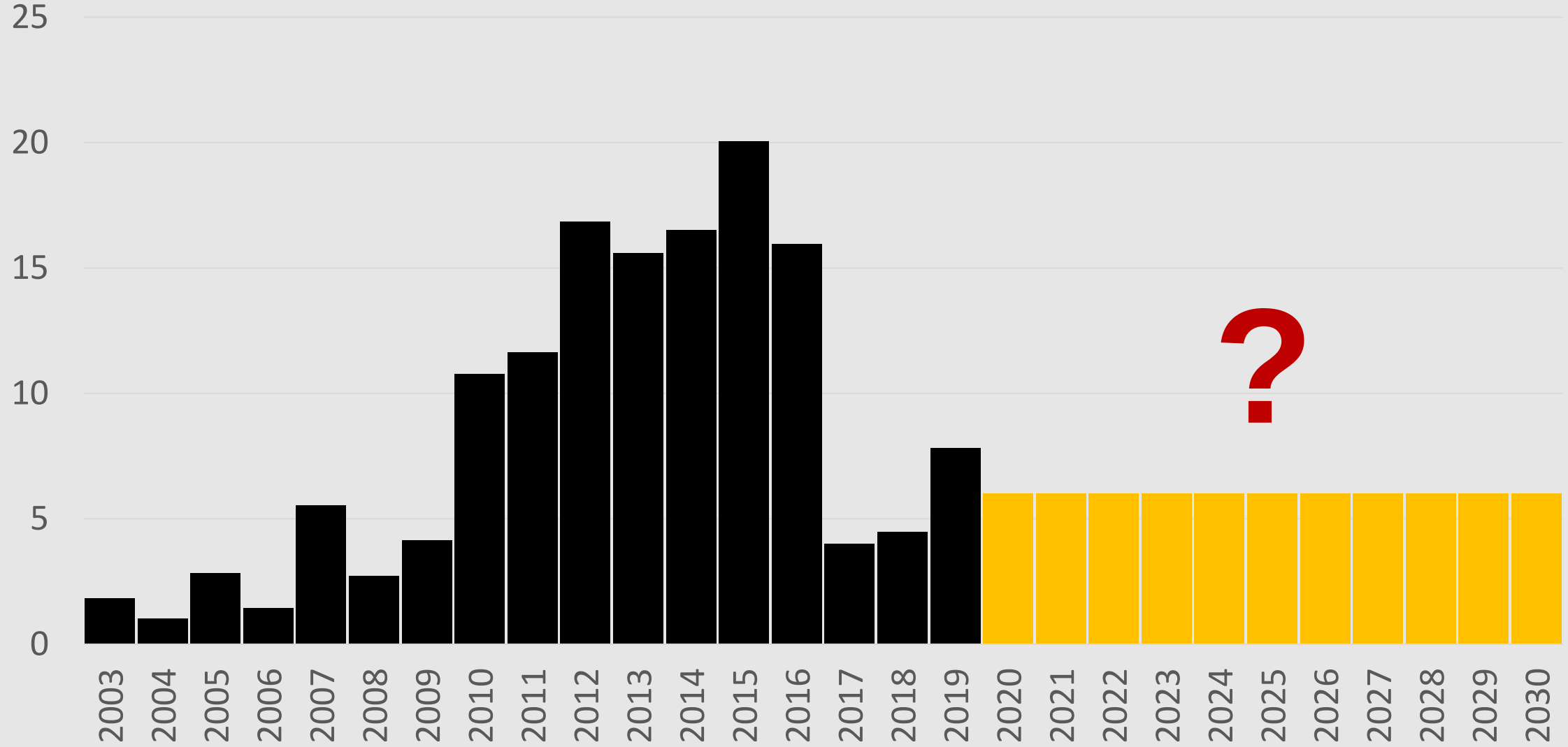
Last updated in 05/2020



Source: BNEF 2020

Projected net coal power capacity additions in India (in GW)

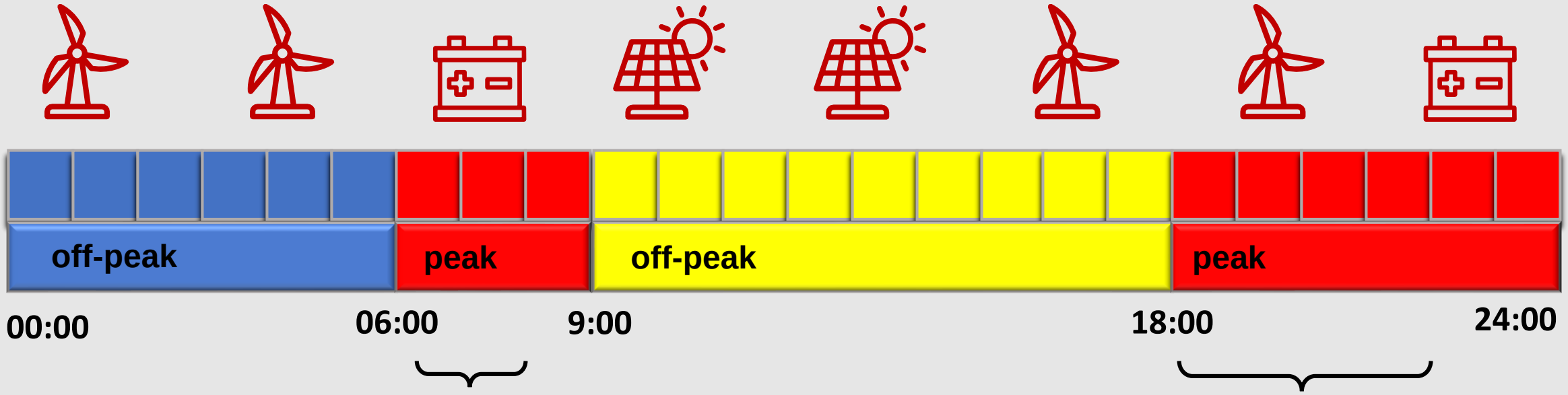
to cater the electricity demand growth of approx. 4% annually (peak demand growth approx. 7% annually) until 2030



Source: www.cea.nic.in Compiled by: iggf

1,2 GW PPAs with specific peak power tariffs (in EURct./kWh)

Govt. of India giving higher tariffs for peak power with preference for renewables + storage



PPAs with specific peak power tariffs (in EURct./kWh)

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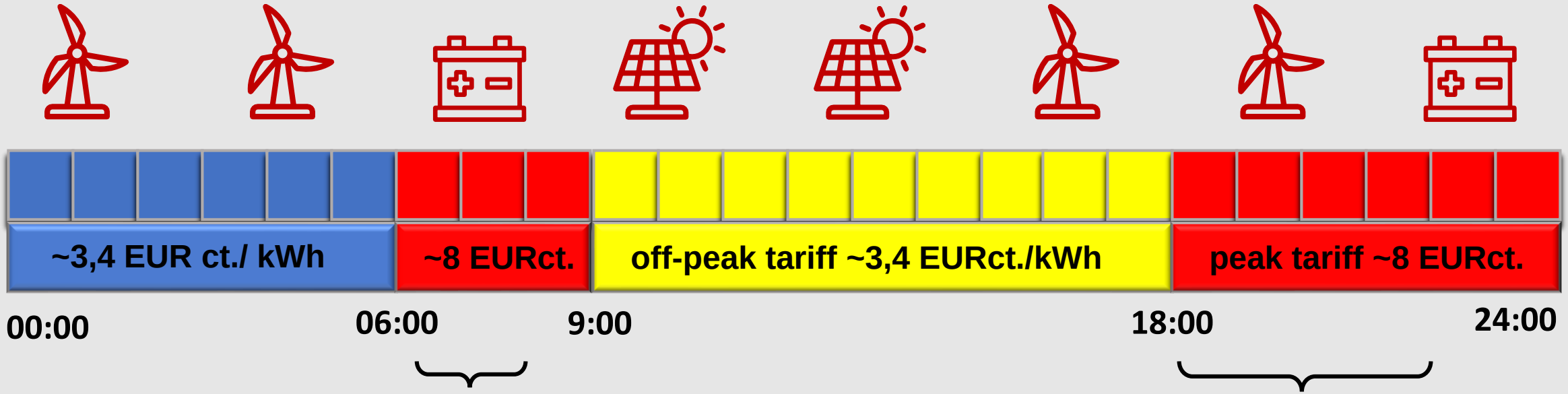
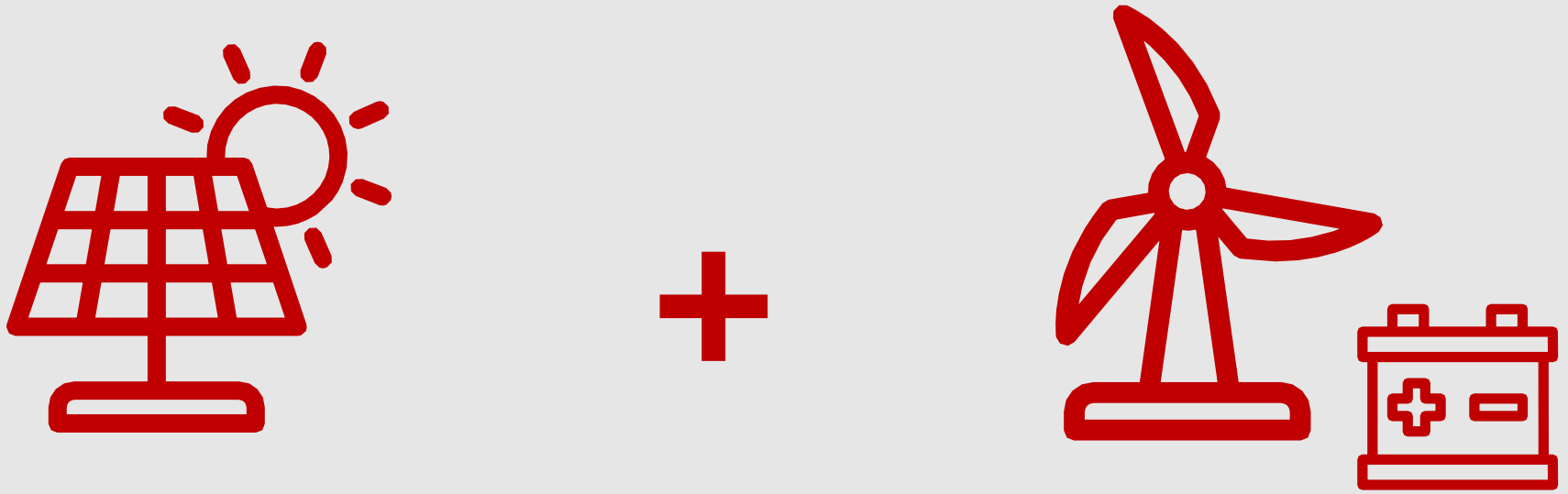


PV + Storage cheaper than coal?

31.01.2020 - India wrote history! Here prices for bid of 300 MW RE + storage capacity (min. 150 Mwh with 50-150 MWp)



3,4 EURct./kWh off-peak power

8 EURct./kWh peak power

* as per exchange rate INR -> EUR on 25th June 2020

Time-of the day tariff for generation

Worldwide first 1,2 GW Renewables plus Storage tender by SECI

Peak Tariff*
06:00 to 09:00
18:01 to 24:00

Off-Peak Tariff
00:01 to 05:59
09:01 to 18:00

Bidder / Developer	Capacity	Peak Tariff		Off-Peak Tariff		Weighted Avg. Tariff*	
	MW	₹/kWh	EURct./ kWh**	₹/kWh	EURct./ kWh**	₹/kWh	EURct./ kWh**
Greenko	900	6.12	**7,2**	2.88	**3,4**	4.04	**4,75**
ReNew Power	300	6.85	**8,0**	2.88	**3,4**	4.30	**5,05**

Lessons learnt:

- Time-of the day tariff for generation! instead of power trading at electricity exchange
- Single technology PPAs will continue but may be less preferred in future
- Dispatchable power from batteries, hydro and even wind the preffered choice for catering the peak demand

*2 hours in the morning and 4 hours in the evening out of the defined hours of peak supply

** as per exchange rate of 25th June 2020

Source: Mercom 2020

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Lowest bid PV
~3 EURct./kWh

Lowest bid Wind
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Sources: https://posoco.in/reports/as3-details/, www.pixabay.com

21/7 not 24/7

performance criteria and tariffs for up to 1,2 GW

Tariff

- Fixed tariff for off-peak hours for 25 years
- Tariff for the peak hours through reverse action
- Excess generation can be sold in open market
- no tariff escalations
- Penalty of 1,7 EURct./kWh for all units below 3 MWh/MW of project capacity during 6 defined peak hours

Performance criteria

- 35% capacity utilization factor annual (+10/-15% annual variation in generation is permitted for first 10 years)
- 3 MWh/MW of project capacity to be supplied daily for six of the nine peak hours defined
- 6 out of 9 peak hours chosen by utility on a daily basis
- MWh energy storage backup with a minimum of 50% of the generation capacity. MWp sizing as per decision by bidder.
- Commissioning max. 30 months from PPA signing

Technology

- only solar, only wind or co-located wind-solar projects along with energy storage systems
- any combination of battery energy storage, pumped hydro, mechanical and chemical storage systems

Driver

- Utilities prefer RE generation which matches their demand profiles with guaranteed minimum power dispatch
- Utilities prefer responsibility of balancing intermittent renewables laying with the independent power producers (IPPs)

Strategies to manage the capacity factor requirements at given tariff

Financial and technical measures

Financial

- Lower IRR expectations from this first project to stay ahead of competitors
- Assume a drop in costs of PV modules and batteries at time of procurement (mid 2021)
- Expect financing costs to fall as result of fiscal and monetary measures for Covid-19 recovery
- Pay penalty for a month's shortfall in generation and recover from third party sale in other months

Technical

- Locate project in multiple locations to maximize energy production
- Use cheaper batteries with faster replacement to benefit from further cost reductions or new technologies
- Deploy a mix of seasonal storage, like pumped hydro and short term storage, like batteries
- Use advanced tools for forecasting of wind and solar output to manage charging and discharging of storage

Source: BNEF 2020

Vielen Dank!

Thank you!

धन्यवाद

Backup / Captive / Self-consumption behind the meter

Market opportunity for alternatives (approx. +5 GW annual growth)

PV rooftop + storage gaining momentum in India

At present in the commercial and industrial sector because of higher electricity tariffs

Vielen Dank!

Thank you!

धन्यवाद

Power tariffs in India for final customers

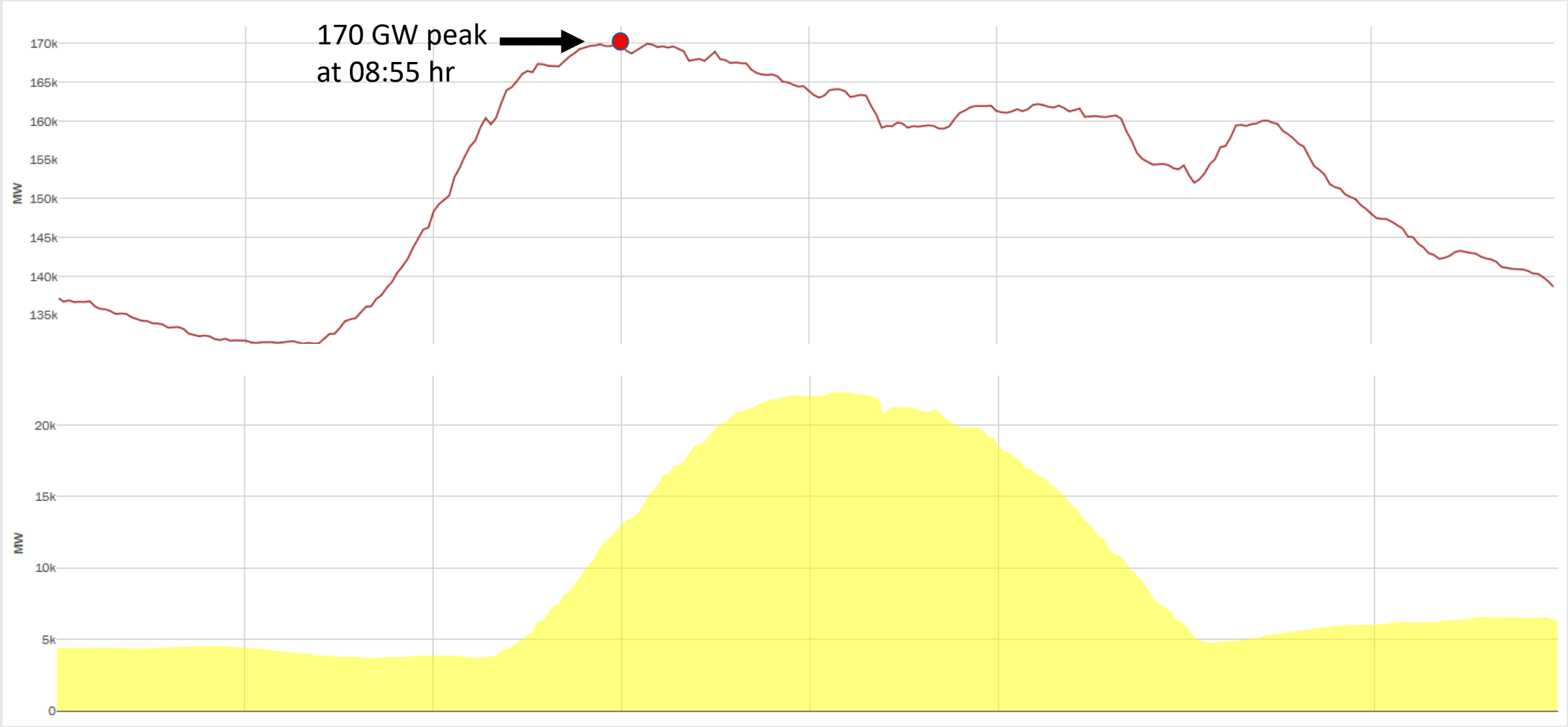
Depends on the state and the type of the consumer! RE + battery competetive?

State - tariff class	EURct. / kWh
City of **Delhi** - tariff for **industries**	**~11**
State of **Madhya Pradesh** - tariff for **residential homes**	**~9**
State of **Maharashtra** - tariff for **commercial** customers (Shopping center, call center, etc.)	**~14**

Source: BNEF 2020

Electricity Generation from Renewables in India

Peak demand of 2020 happened on on 3rd March 2020 so far



Source: https://carbontracker.in based on data from MERIT India, last accessed 16th June. 2020

NERA
ECONOMIC CONSULTING

DYNAMIC AUCTIONS UNDER THE NEW WINDSEEG: TEST BALLOON FOR MORE OR A FALSE START?

Dominik Huebler
Associate Director

Leonie Janisch
Research Officer

Virtual Strommarkttreffen
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Insight in Economics™

About us

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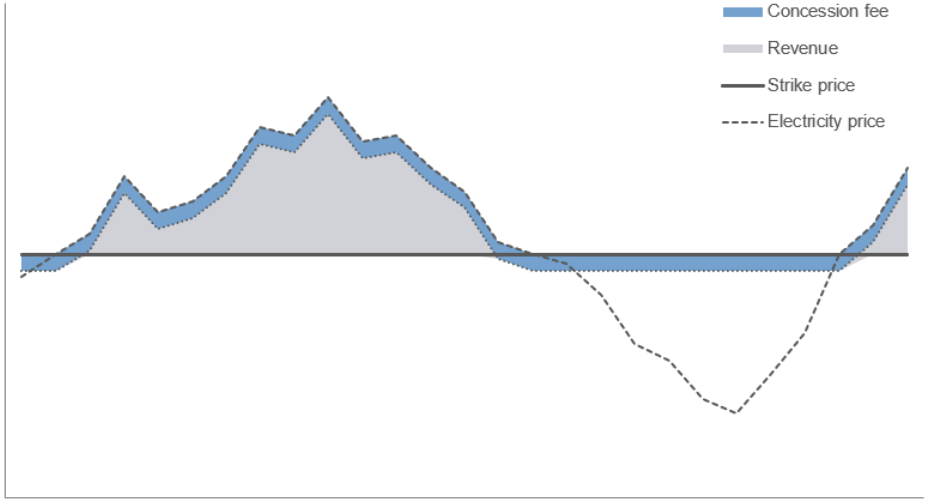
- Associate Director in the Energy and Infrastructure Practice in Berlin
- 12 years of experience advising companies, investors, law firms and public institutions regarding renewable energy, e.g.:
  - Advice on instruments promoting renewable energy sources in Europe and bidding support for renewables investors
  - Regulatory and market due diligence for off-shore wind projects, cogeneration and regulated networks in Germany and Europe
  - Economic consulting in court and arbitration proceedings on renewable energy, including the Offshore Wind Energy Act, the Combined Heat and Power Act and state aid including in Germany, Bulgaria and Croatia
  - Several publications in energy economics, e.g. on Art. 51 EEG (reduction of the support in the case of negative prices), changes to renewable energy support schemes, financing costs,…
  - Regular lectures covering e.g. long-term risks of green PPAs and international experiences with auctions for renewable energies.

The bidding mechanism in Germany‘s new Offshore Wind Act: some old, some new

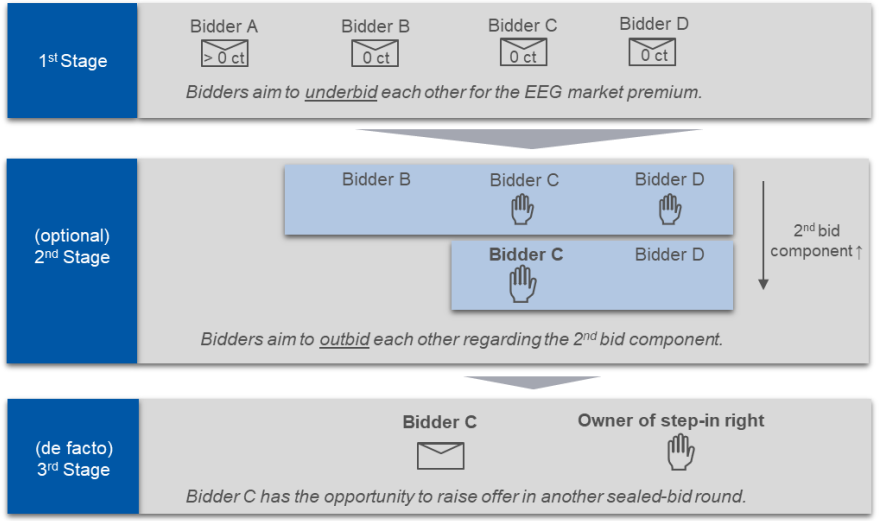
Proposed model retains a one-sided market premium but adds potential concession fees

- Unlike most other main European offshore markets (UK, DK, FR, PL) Germany retains a one-sided market risk premium
- In case of negative bids the developer pays an annual concession fee over a 15-year period



Proposed auction model is a hybrid dynamic / static auction

- Initial sealed bid round (as before)
- Dynamic second bidding stage in case of multiple zero-subsidy bids in round 1
- Winner of the dynamic bidding round gets the opportunity to raise bid (in de facto sealed bid) before the owner of the step-in right gets the chance to take over



Not entirely unchartered territory: Dynamic auctions have been already been used elsewhere

- SDE+ in NL
  - Multi-item auction with an increasing ceiling price. Bids are awarded up to the auctioned budget.

- Dynamic, zone specific auction for PV in PT
  - „Ascending clock“ auction (increasing net present value) which continues until the offered volume is less or equal to the auctioned volume.

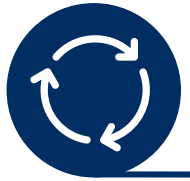
- Spectrum auctions
  - Dynamic auction designs are the standard in telecommunication tender processes.

Benefits of static vs. dynamic auctions

- Standard for renewables in most European countries
- Simplest operational model
  (but can be strategically complex under first price award rules)
- May be better at ensuring competitiveness of auction where step-in rights exist
  (lower “cost” of information revelation)

- Plenty of precedent and experience from spectrum auctions for mobile telephony and capacity auctions in the energy sector
- Reduced risk of winners curse, as the behaviour of other bidders can be observed
- More suitable if multiple areas are auctioned simultaneously (but will they?)

Some questions on the proposed German mechanism



HYBRID AUCTION DESIGN

- Why the back and forth between static and dynamic bidding within a single auction

THE TWO SIDES OF INFORMATION REVELATION

- Usefulness of Additional „costs“ which may deter potential bidders from participating in the auction

ARE WE AUCTIONING THE RIGHT PRODUCT

- Costs and benefits of the current one-sided market premium vs. a symmetric market premium (CfD)

Will we see the new mechanism in action?

+

- Highly competitive market as proven by recent bidding in DE, NL, UK
- Technological progress expected to bring down costs

-

- Lower power prices due to Covid
- Small lot sizes in 2021 in particular
- Existence of step-in rights may deter bidders
- Lower option value (higher penalties / shorter time frames) under new design may limit aggressiveness of bidding

Where we can help

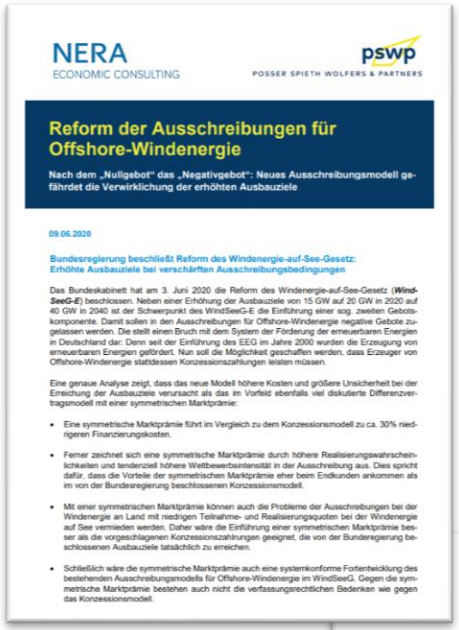
- **Auction analysis and bid support** (e.g.Vattenfall, Equinor, SSE, …)
  - Auction simulation and bid optimisation
  - Analysis PPA-market and co-investors
  - Competitor analysis
  - “War Gaming”

- **Market entry/ economic analyses of offshore wind in Germany** (e.g. for China Three Gorges, …)
  - Analysis of the regulatory framework (electricity market and renewables subsidies)
  - Electricity price prognosis in various scenarios
  - Analyses of auction scenarios

- **Evolution of regulatory frameworks for RE subsidies**
  - Impact assessment of CfD introduction for UK DECC
  - Analyses of different tender mechanisms for offshore wind in NL
  - Design, preparation and subsidy analysis regarding the introduction of CfD in RO

- **Economic consulting in court and arbitration proceedings on RE**
  - Long-term delivery contract Solar-Wafers (ICC)
  - Adjustment of regulatory framework conditions win (ICSID)
  - Adjustment subsidy conditions hydro power, biomass (both ICSID)
  - Diverse, e.g. grid connection, financial feasibility (FERC, ad hoc)

Recent NERA publications on renewable energy auctions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POSSER SPIETH WOLFERS & PARTNERS

Reform der Ausschreibungen für Offshore-Windenergie

Nach dem „Nullgebot" das „Negativgebot": Neues Ausschreibungsmodell gefährdet die Verwirklichung der erhöhten Ausbauziele

09.06.2020

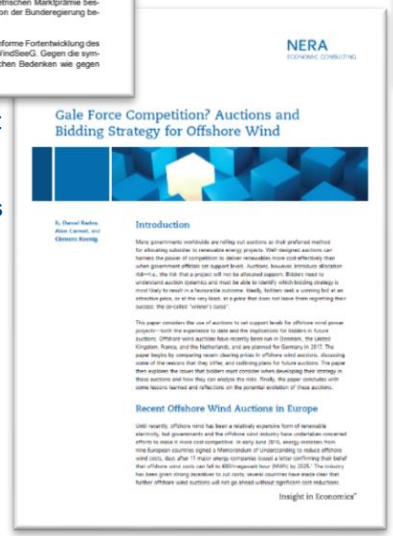
Bundesregierung beschließt Reform des Windenergie-auf-See-Gesetz: Erhöhte Ausbauziele bei verschärften Ausschreibungsbedingungen

Das Bundeskabinett hat am 3. Juni 2020 die Reform des Windenergie-auf-See-Gesetz (**Wind-SeeG-E**) beschlossen. Neben einer Erhöhung der Ausbauziele von 15 GW auf 20 GW in 2020 auf 40 GW in 2040 ist der Schwerpunkt des WindSeeG-E die Einführung einer sog. zweiten Gebotskomponente. Damit sollen in den Ausschreibungen für Offshore-Windenergie negative Gebote zugelassen werden. Die stellt einen Bruch mit dem System der Förderung der erneuerbaren Energien in Deutschland dar: Denn seit der Einführung des EEG im Jahre 2000 wurden die Erzeugung von erneuerbaren Energien gefördert. Nun soll die Möglichkeit geschaffen werden, dass Erzeuger von Offshore-Windenergie stattdessen Konzessionszahlungen leisten müssen.

Eine genaue Analyse zeigt, dass das neue Modell höhere Kosten und größere Unsicherheit bei der Erreichung der Ausbauziele verursacht als das im Vorfeld ebenfalls viel diskutierte Differenzvertragsmodell mit einer symmetrischen Marktprämie:

- Eine symmetrische Marktprämie führt im Vergleich zu dem Konzessionsmodell zu ca. 30% niedrigeren Finanzierungskosten.
- Ferner zeichnet sich eine symmetrische Marktprämie durch höhere Realisierungswahrscheinlichkeiten und tendenziell höhere Wettbewerbsintensität in der Ausschreibung aus. Dies spricht dafür, dass die Vorteile der symmetrischen Marktprämie eher beim Endkunden ankommen als im von der Bundesregierung beschlossenen Konzessionsmodell.
- Mit einer symmetrischen Marktprämie können auch die Probleme der Ausschreibungen bei der Windenergie an Land mit niedrigen Teilnahme- und Realisierungsquoten bei der Windenergie auf See vermieden werden. Daher wäre die Einführung einer symmetrischen Marktprämie besser als die vorgeschlagenen Konzessionszahlungen geeignet, die von der Bundesregierung beschlossenen Ausbauziele tatsächlich zu erreichen.
- Schließlich wäre die symmetrische Marktprämie auch eine systemkonforme Fortentwicklung des bestehenden Ausschreibungsmodells für Offshore-Windenergie im WindSeeG. Gegen die symmetrische Marktprämie bestehen auch nicht die verfassungsrechtlichen Bedenken wie gegen das Konzessionsmodell.

https://www.nera.com/content/dam/nera/publications/2020/Briefing%20-%20Reform%20der%20Ausschreibungen%20f%C3%BCr%20Offshore-Windenergie_15_06_2020.pdf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Gale Force Competition? Auctions and Bidding Strategy for Offshore Wind

Introduction

Recent Offshore Wind Auctions in Europe

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https://www.nera.com/content/dam/nera/publications/2016/PUB_Offshore_Wind_A4_0916.pdf


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Hart am Wind: Einsichten aus der Optionsbewertung zu den Ergebnissen der ersten deutschen Offshore-Wind-Ausschreibung und ihren Auswirkungen

Kernpunkte

https://www.nera.com/content/dam/nera/publications/2017/PUB_Offshore_EMI_German_A4_0417.pdf


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www.quotidianoenergia.it

sle Fer: le esperienze di UK e Germania

https://www.nera.com/content/dam/nera/publications/2016/Quotidiano%20Energia%20NERA%2013%20December%202016.pdf


NOMOSKOMMENTAR

Spieth | Lutz-Bachmann [Hrsg.]

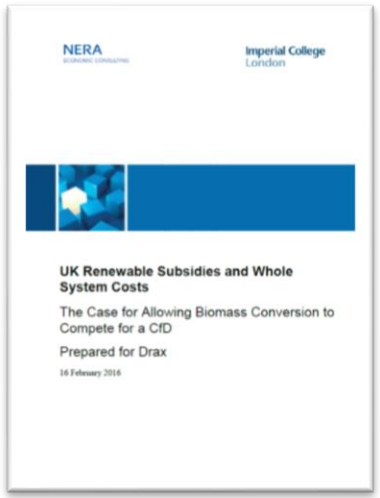
Offshore-Windenergierecht

WindSeeG | EEG | EnWG

Handkommentar

Nomos

https://www.nomos-shop.de/titel/offshore-windenergierecht-id-80902/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Imperial College London

UK Renewable Subsidies and Whole System Costs

The Case for Allowing Biomass Conversion to Compete for a CfD

Prepared for Drax

16 February 2016

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Thank you for your attention!

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