

Pan-Baltic Energy Business Breakfast:
Same same, but different?

SORAINEN

1 October 2024
Vilnius



Latvia

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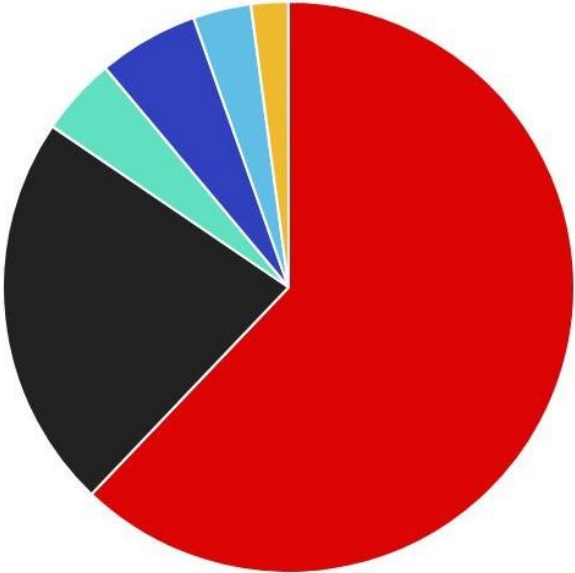
Latvia's Transition to Climate Neutrality: Renewables

Actual data	 Target 2030	 Target 2030
Energy produced from RES vs consumption – 53.5% (2022)	> 80%	42.5% - 45%
RES share in total energy produced – 77.6% (2023)	100%	

Electricity consumed (2023) – 6.9 TWh	Projection for 2030 – ca. 9 TWh
---------------------------------------	---------------------------------

Renewables in Latvia = Schrödinger's cat?

Electricity Produced in 2023



Electricity produced in 2023	6.9 TWh	Jan-Aug 2024
Hydropower	62%	59%
Natural Gas	22%	32%
Wind Energy	4.4%	3%
Biomass/Biogas	9%	-
Solar Energy	2.1%	6%

TSO market review data
<https://www.ast.lv/lv/electricity-market-review?year=2023&month=13>

How / what / when?

Solar

DSO - 500 MW installed + 750 MW reserved

TSO – 3,585 MW reserved

Wind

141 MW installed + 851 MW reserved

Other

- ELWIND (up to 1 GW) by 2035
- New offshore parks (+ 1GW) by 2029-2040
- Onshore wind 1,3-1,5 GW by 2030
- New Interconnections (EE, SE, DE)



Amendments to Electricity Market Law

Until 31 March 2026 – flexible connections only

- Flexible Connection – curtailment up to 10% + TSO service costs
- Production unit's profile matters – compatibility with existing technology in the connection - **Go wind!**
- Late grid reservation – **Fastest gets it all!**
- **No grid reservation fees** for flexible connections

Existing connections – last call for hybrids (1MO 1YR)

1 February – 3 March 2025 TSO notification period -> 28 February 2026

→

The principle of **overriding public interest**:

- ✓ RE = Environment
- ✓ EIA and buildings permits – **Appeal? Not a big deal!**

This could be us,
but you are
changing permitting
laws 3 times per
year



Amendments to Electricity Market Law

Other:

- Library days - **giving up** unused capacities until 31 January 2025
- Grid reservation fees → deposit
- BESS no longer production facilities – new regulations expected

Planned adoption of the new legislation – December 2024, until then –



Discomfort Payments

Amount: 2500 EUR/MW per year (5 year review)

Object: WTGs exceeding 1 MW

Applicable for WTGs commissioned after the regulations come into force, except, if an upgrade is performed

Receivers: households, registered owners of apartments or living houses located within 2 km for onshore WTGs, 25 km for offshore and commissioned before the WTG building permit date

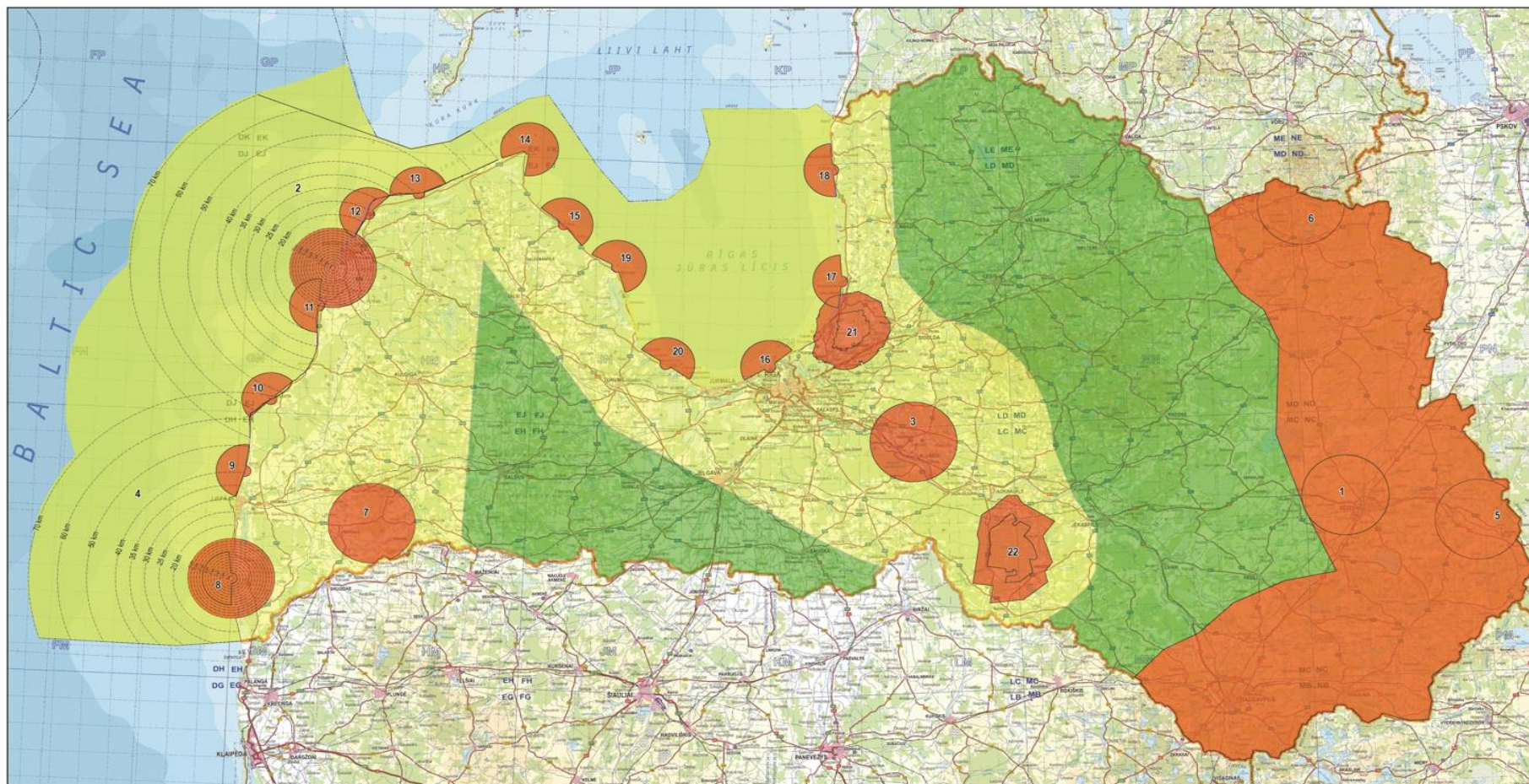
Do not qualify commercial properties, legal entities, and persons owning the WTGs or leasing out the land for WTGs

Split: 50% / 50% between the households and municipalities, but: re: households min – 1 minimal salary; max – 3 minimal salaries, provided that the municipality receives not less than 10%

Me, after that discomfort payment comforts my bank account



Defence Ministry permit required for any new objects above 100m



Mērogs 1 : 1 280 000



■ vēja parku būvniecība ir pieļaujama un atbilstama bez kompensāciju mehānismu piemērošanas. Nepieciešams saskaņojums ar Aizsardzības ministriju, atbilstoši normatīvo aktu prasībām, kad zināms konkrēts turbīnu skaits, izvietojums un augstums.

■ vēja parku būvniecība ir iespējama, ja ir iespēja piemērot kādu kompensācijas mehānismu.

■ vēja parku būvniecība nav pieļaujama, būtiski traucē NBS funkciju veikšanu. Zonējumu plānots pārskatīt 2027. gadā, vai būtāk pie priekšnosacījuma, ka būtiski mainīsies drošības situācija reģionā vai tiks sasniegts noteikts tehnoloģiskās attīstības līmenis, kad vēja parki neradīs negatīvu ietekmi uz valsts aizsardzībai paredzētajiem navigācijas tehniskajiem līdzekļiem.

Valsts aizsardzības vajadzībām paredzētie navigācijas tehniskie līdzekļi (JNTL):

- | | |
|--------------------|-----------------|
| 1. Audriņu NTL | 5. Brīņu NTL |
| 2. Čalu NTL | 6. Ziemeņu NTL |
| 3. Liepārdes NTL | 7. Līvkaļņu NTL |
| 4. Jūrmalciena NTL | |

Militārie jūras novērošanas tehniskie līdzekļi (JNTL):

- | | | |
|---------------------|---------------------|----------------------|
| 8. Jūrmalciena JNTL | 12. Tārgales JNTL | 16. Rīgas JNTL |
| 9. Šķēdes JNTL | 13. Miļeļtorņa JNTL | 17. Saulkrastu JNTL |
| 10. Pāvilostas JNTL | 14. Kolkašas JNTL | 18. Salacgrīvas JNTL |
| 11. Užavas JNTL | 15. Rojas JNTL | 19. Mērsraga JNTL |
| | | 20. Ragaciema JNTL |

Militārie poligoni:

21. Ādažu militārais poligons
22. Sēlijas poligons



Latvian State Forests - New Tenders Incoming

348 000 ha of forest lands available for WTG

- Covered risks – 800m distance to residential houses, infrastructure protection zones and information on registered environmental protected areas have been verified
- The rest of the risks are on the developer (EIA, territorial planning, radars)

Upcoming critical deadlines:

Applications – 4 November 2024

Tender duration: 20 November 2024 – 20 December 2024

Contract signing – January 2025

Fees and development timeline

MAX 30Y = 5Y research + 4Y construction + 20Y operation+1Y removal



insert your joke or WTG
here

Coming Soon



- International lenders looking at the market – new developments happening soon?
- Bankability requirements from legal side not there yet
- Any future for BESS?
- Will solar parks survive chaos with territorial planning?
- Never-ending legislative changes



Estonia

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Estonia: context

- **Energy & climate policy**
 - 2030 – domestic renewable electricity production must cover 100% of electricity consumption in Estonia;
 - 2050 – climate neutrality
- **Climate law (draft)**
 - reduction of GHG emissions in energy sector (compared to 2022 levels)
 - by 2030 – 37%
 - by 2035 – 45%
 - by 2040 – 84%
 - from 2040 electricity and heat production is CO2 free
- **Paradigm shift**
 - „investments against the market“ -> return of subsidies
 - „security of supply is ensured by cross-border markets“ -> domestic capacities are needed

Estonia: status

- Energy is high on agenda
- Many players developing new projects
 - renewables (onshore + offshore)
 - BESS & pumped hydro
 - conventional (gas)
 - and even nuclear...
- Land and grid mostly secured
- Planning and permitting procedures reaching final stages and RtB
- Small open items 😊
 - Financing
 - Revenue security (subsidy, PPA)

New subsidy auctions for wind farms (draft law)

Onshore wind

- Subsidy volume: 4 TWh (1400 MW) – several auctions
- Form: CfD (1-way)
- Max subsidy: 20 eur/MWh
- Support duration: 12 years
- Min bid volume: 10 GWh/Y
- Timeline:
 - Announcement – 2025 summer (+2026)
 - Bids – 2026 Q1
 - Production start – 2029 Q4
- State aid basis: GBER (EC approval not required)
- Application requirements
 - No „start of works“ before bid submission
 - Grid connection agreement – 6M from results
 - Security deposit: up to 20 eur/MWh
- Bid assessment: price (100 points)

Offshore wind

- Subsidy volume: 2 TWh (500 MW) - 1 auction
- Form: CfD (2-ways)
- Max subsidy: 65 eur/MWh
- Support duration: 20 years
- Min bid volume: 100 GWh/Y
- Timeline
 - Announcement – 2025 H1
 - Bids – 2025 summer
 - Production start – 2033 Q4
- State aid basis: EC approval needed
- Application requirements
 - Superficies licence process initiated
 - No „start of works“ before bid submission
 - Grid connection agreement – 36M from results
 - Security deposit: up to 20 eur/MWh
- Bid assessment: price (95 p) + balancing services to TSO (5 p)

New subsidy auctions for wind farms (legislative process)



KLIIMAMINISTEERIUM

Timeline



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Draft bill

I consultation round: September 2024

II consultation round: October-November 2024

Govt.: November 2024

Riigikogu: December 2024

Entry into force: March 2025

Govt. auction Regulation

I consultation round: December 2024

I consultation round: January 2025

Govt.: March 2025; together with the auction order

Announcement

Offshore wind: April 2025

Onshore wind: April 2025 (additional rounds possible until the end of 2026)

Fixed rate transmission grid connection fee

	Today	Future
Network development	Reactive - based on signed connection contracts	Proactive - developing in advance for future producers
Network reinforcement (NR)	built after the conclusion of the connection contract	may be built in advance by TSO
Connection Fee	Actual costs, including 100% of grid reinforcement and upgrade costs	a) NR fixed fee ca 44 000 EUR/MVA (draft law) <ul style="list-style-type: none">▪ 50% of NR cost to be socialised (included into consumer tariffs) b) connection point – fixed price list
Start of production	<ul style="list-style-type: none">▪ 36 – 48 months from 1st instalment payment▪ production allowed after NR completion	<ul style="list-style-type: none">▪ 18 – 24 months from 1st instalment payment▪ production allowed after connection point completion, even if NR is not complete.▪ compensation in case of production restrictions

Fixed rate transmission grid connection fee – estimated timeline

Supplementing the draft law – October 2024

Draft law to the Government – November 2024

Draft law to the Parliament – December 2024

Draft law is adopted by the Parliament – April 2025

TSO amends connection fee methodology and approves it with NRA – May 2025

TSO calculates and publishes new connection fee pricelist: Sept – Dec 2025

New connection fee pricelist enters into force – Jan 2026?

Other developments

Enabling hybrid projects

- prohibition to „change technology“, draft law expected to relieve the prohibition
- e.g additional technology can be added to the same connection point if and after the initial technology has been built/completed

BESS projects & double „taxation“

- draft law aims to abolish double payment of certain fees for electricity storage projects (expected enforcement January 2027)
- no double payment of fees (transmission fee, renewable energy charge, frequency reserve financing charge) for electricity stored to the extent the stored electricity is returned to the grid during the same storage period (1 month)

Other developments

New fees to producers (and consumers)

- Cost of frequency reserves - an additional charge for the balancing service to cover the procurement costs of the balancing capacity, administrative costs and costs that are not covered by the price of the balancing energy cost
- The cost of frequency reserves is paid by consumers and producers to their open supplier based on consumption & production volumes
- Exact cost to be determined by TSO (methodology not in place)
- Initial estimate 5.31 €/MWh... (not final, subject to change)
- Apply from 1 Feb 2025

Other developments (more draft laws)

Possibility to construct power plants on mineral deposit areas

Wind and solar farms may be built in an area with a valid mining permit where mineral resources have been exhausted, for a term of up to 40 years

Wind energy production charge at reduced rate

Current law: reduced rate (10% of the normal rate) applies until the issue of use permit (in practice actual production starts much earlier)

Draft law:

- 10% rate from start of construction until synchronisation to grid
 - 70% rate from synchronisation until use permit is issued
 - full rate from the issue of use permit
-

Direct lines

Possibility to construct direct lines

- onshore power plants: max line length 6 km from grid connection point (current law: from the power plant)
 - offshore wind farms: max line length 15 km from the onshore substation
-

Nuclear energy deployment

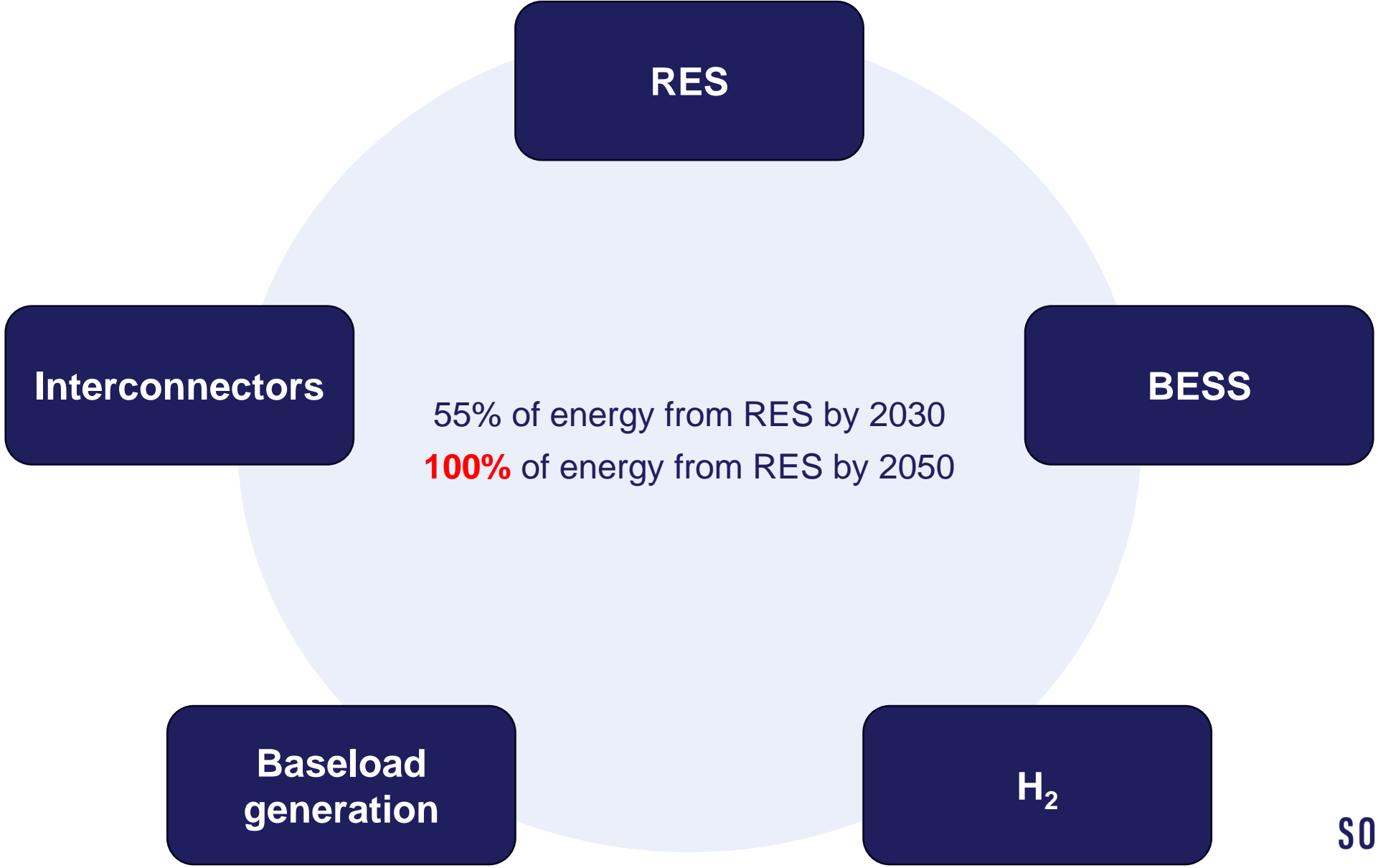
- Estonia is considering deployment of nuclear energy
- Working group: introduction of nuclear energy in Estonia is feasible
 - Technology: small modular reactor (SMR) up to 400 MW per unit
 - Time until start of production: 9-11 years
 - IAEA: OK to decide on the programme launch
- **June 2024 Parliament passed a decision on supporting the adoption of nuclear energy in Estonia**
- Now work begins on
 - Drafting of laws (nuclear energy, safety act)
 - Planning procedures – finding location



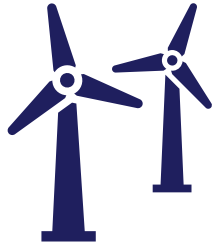


Lithuania

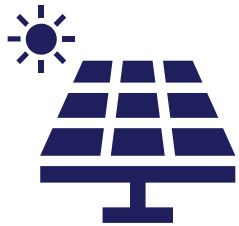
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RES – may it blow, may it shine



	S.Q.	2030	2040	2050
Offshore	n/a	1.4 GW	2.8 GW	4.5 GW
Onshore	1.3 GW	4.5 GW	6.5 GW	10 GW



S.Q.	2030	2040	2050
1.6 GW	4.1 GW	7 GW	9 GW



- attracting new investments
- land / territory + grid connection
- PPA market – shallow & illiquid
- bankability of merchant projects

BESS – ready, steady, store!



S.Q.	2030	2040	2050
0.2 GW*	1.1 GW	2.2 GW	4 GW



- critical role in CEN synchronisation
- balancing + reserve services
- flexibility + supply / demand management
- price arbitration

Truth or Dare

- no market certainty until Q1 2025
- 200 MW market release in 2025
- equity financing – the only option?
- firstcomers will harvest the fruit

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H₂ – to be, or not to be?



	2030	2050
Electrolysis	1.3 GW	8.5 GW
Green H ₂	129 kt	732 kt

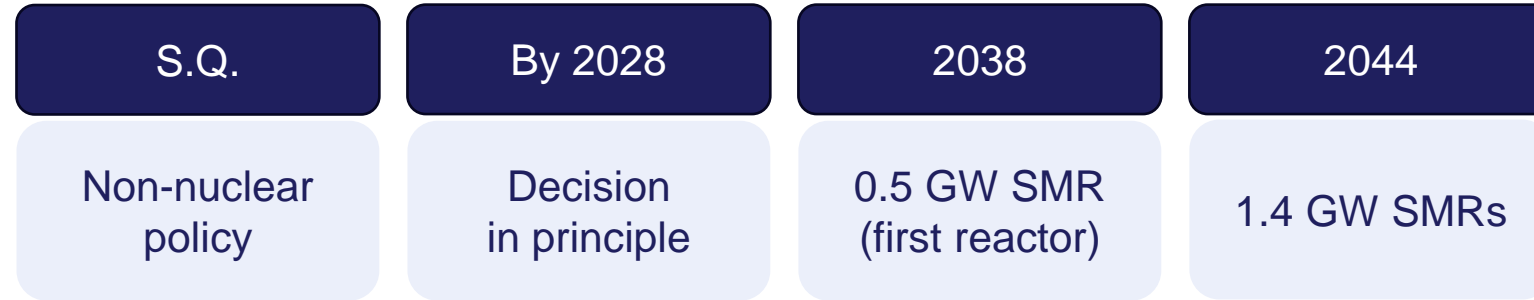
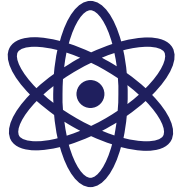


Truth or Dare

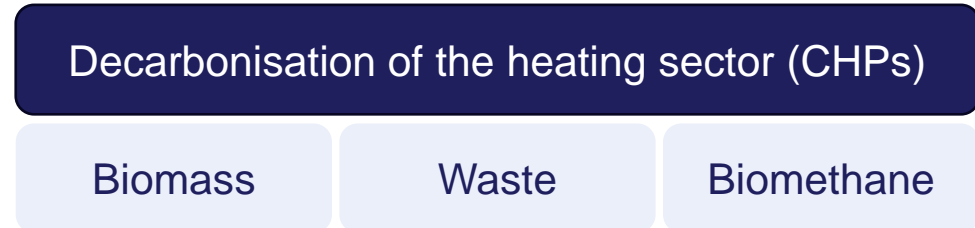
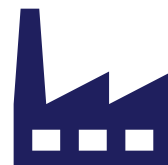
- regulatory framework on the way
- market niche remains vague
- infrastructure developments needed
- financing the “spaceship” technology

- energy conversion potential
- natural gas replacement
- industry & transport consumption
- Baltic hydrogen hub

Baseload generation – audiatur et altera pars

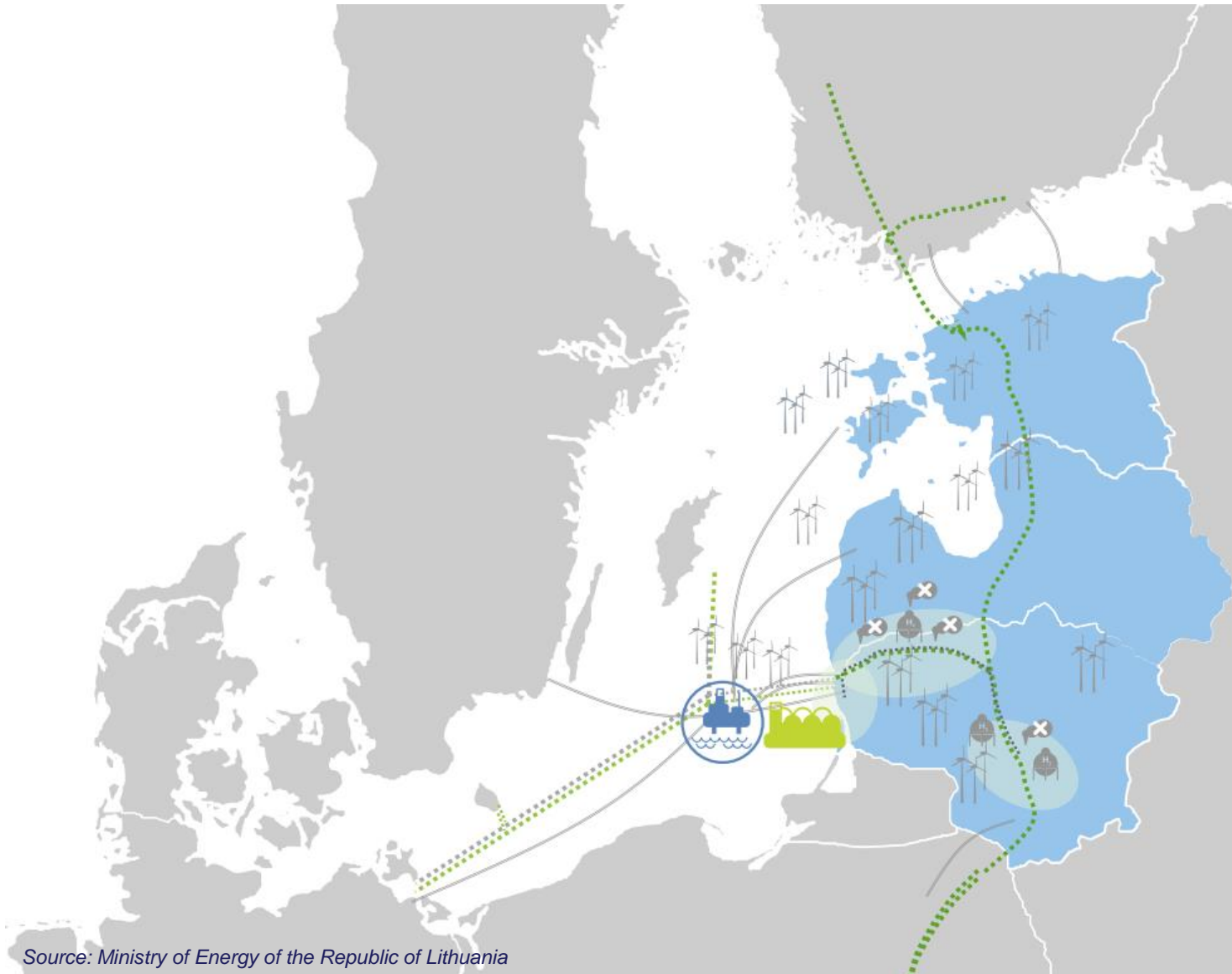


- regulatory basis already in place
- no technical / financial feasibility assessed
- market positioning is yet uncertain
- queuing for technology has already started



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Interconnectors – friends will be friends



Source: Ministry of Energy of the Republic of Lithuania



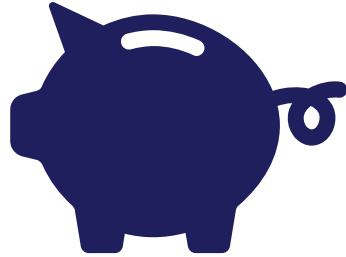
- the Baltics
- Finland & Sweden
- Poland
- Germany (!)

Truth or Dare

- who will be the payer?
- lessons learned – not so fast!
- potential for private investors

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Do. Or not do. There is no try.



EUR 150 billion investment in the Baltics over the next 20-25 years

Empowering
the change

- enhancing the regulatory framework
- tailoring the incentivisation (e.g., PPS, CfD, new tech subsidies, laissez-faire, etc.)
- full integration of Baltic energy markets (and systems)
- triggering private investments in cross-border connectivity
- focus on demand-side management & decentralisation

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Contact us!

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Attracting Project Finance to the Baltics

NORD/LB Structured Finance: Financing the transition to a sustainable future

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NORD/LB Structured Finance: An award-winning team

Inspiratia 2023 league table ¹		
Top Lenders		Deal Count
1	SMBC	60
2	NORD/LB	34
3	MUFG	27
4	Société Générale	24
5	Crédit Agricole	22

1) Ranked by deal count

BloombergNEF 1Q 2024 Clean Energy League Tables²

Asset finance lead debt providers
NORD/LB ranked 1st

2) Ranked by volume



Project Finance Deal of The Year Award
Winner

NORD/LB
Creating true value.



Asia Pacific Green Deal of the Year
ReNew Power RTC, India
Asia Pacific LNG Deal of the Year
Pluto LNG Train 2, Australia



Best Lender Renewables



Renewable Deal of the Year
ReNew Power RTC, India
Syndicated Project Finance Deal of the Year
Pluto LNG Train 2, Australia



About NORD/LB

Supporting our clients around the world for over 250 years

- NORD/LB is a **German Landesbank** owned by the German states of Lower Saxony and Saxony-Anhalt.
- The bank supports the public sector in **municipal financing** and assumes the responsibilities of a **central bank** for the savings banks in the two states as well as Mecklenburg-Western Pomerania.
- With a **history of 250+ years**, NORD/LB has supported new clients and built up comprehensive expertise across the globe with offices throughout Europe, as well as in Singapore and New York.
- NORD/LB's investments total approx. **EUR 90.2 billion** and are spread across five diverse business segments.

Quick facts & figures	
Employees	3,600 across 16+ locations ¹⁾
Total assets	EUR 113 billion
Non-performing loan ratio	0.7 %
Liquidity coverage ratio	129 %
Long-term issuer rating	A- (Fitch) / Aa2 (Moody's)
Sustainability rating	C Prime (ISS ESG) / BBB (MSCI)

Business segments by exposure at default (EUR bn)	
Corporate Customers & Savings Bank Network	40.9
Structured Finance <i>incl. Aviation Finance EUR 3.1 bn</i>	20.4
Commercial Real Estate	17.4
Private / Commercial Customers	8.0
Special Credit & Portfolio Optimization	3.5
Total investment in our clients	90.2

Figures as of 30 September 2023 unless stated otherwise

¹⁾ Figures as of 12.2022

NORD/LB Structured Finance

Financing the transition to a sustainable future by supporting our clients across our global platform

Key figures as of 31 Dec 2023

Award winning global team
of over

155 

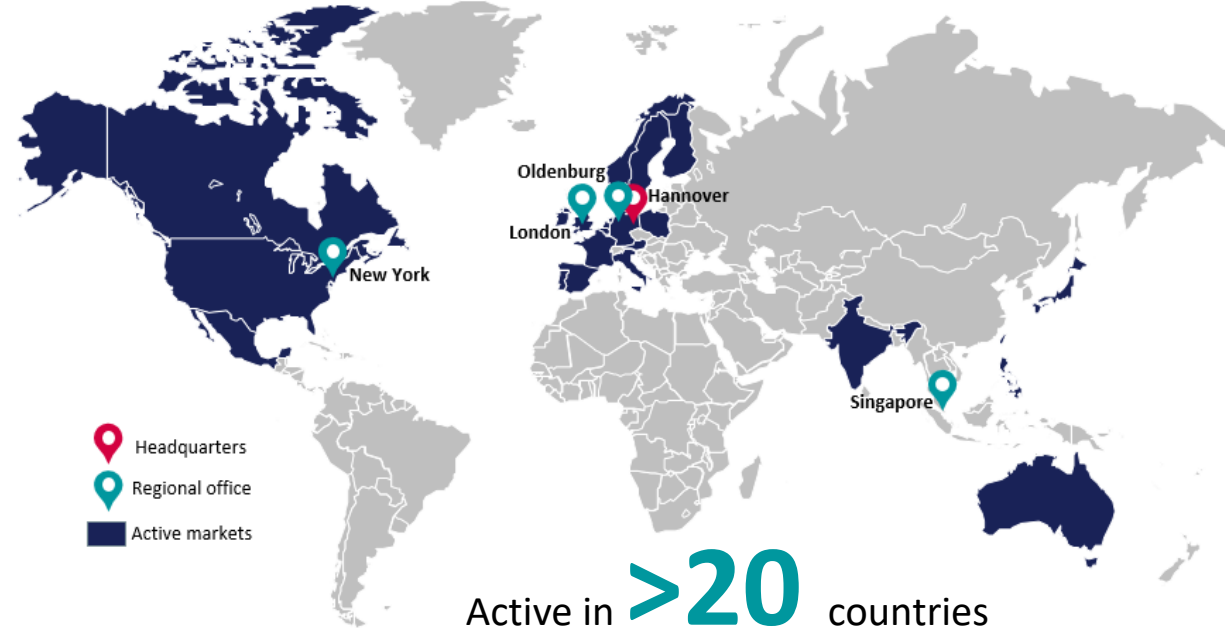
~€17.6bn

exposure at default

>60GW

Global renewable
energy assets financed
(wind, solar & battery storage) c

Supporting clients across our global platform



>200

Infrastructure projects
financed worldwide

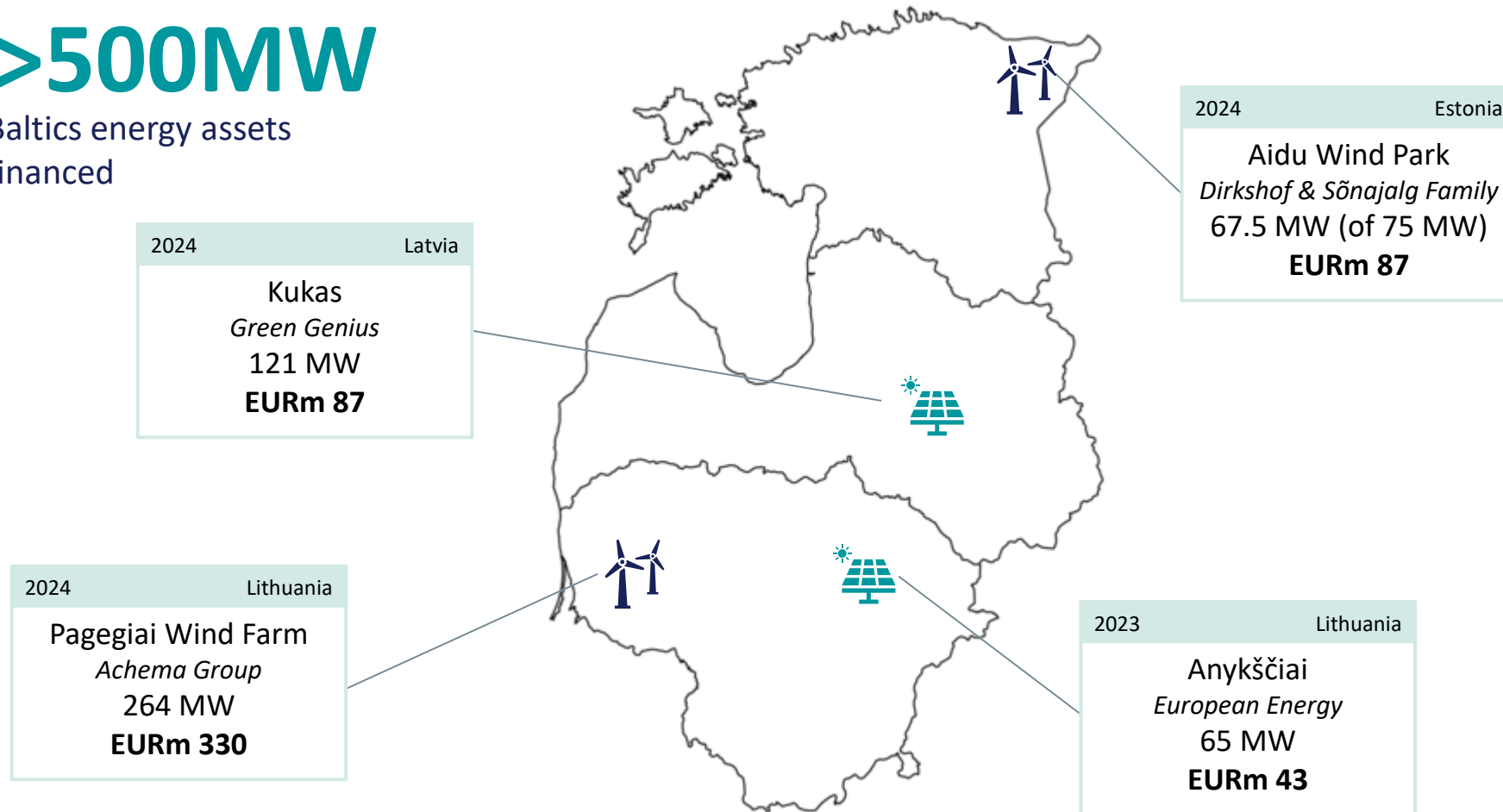
>1,000

Renewable energy projects
financed worldwide

NORD/LB's track record in the Baltics

>500MW

Baltics energy assets
financed



Project Finance vs Corporate Finance

Non-Recourse / Limited Recourse

Off Balance Sheet

Project Rating

DSCR / Cash Flow Based Sizing

Full Suite Due Diligence

Recourse

On Balance Sheet

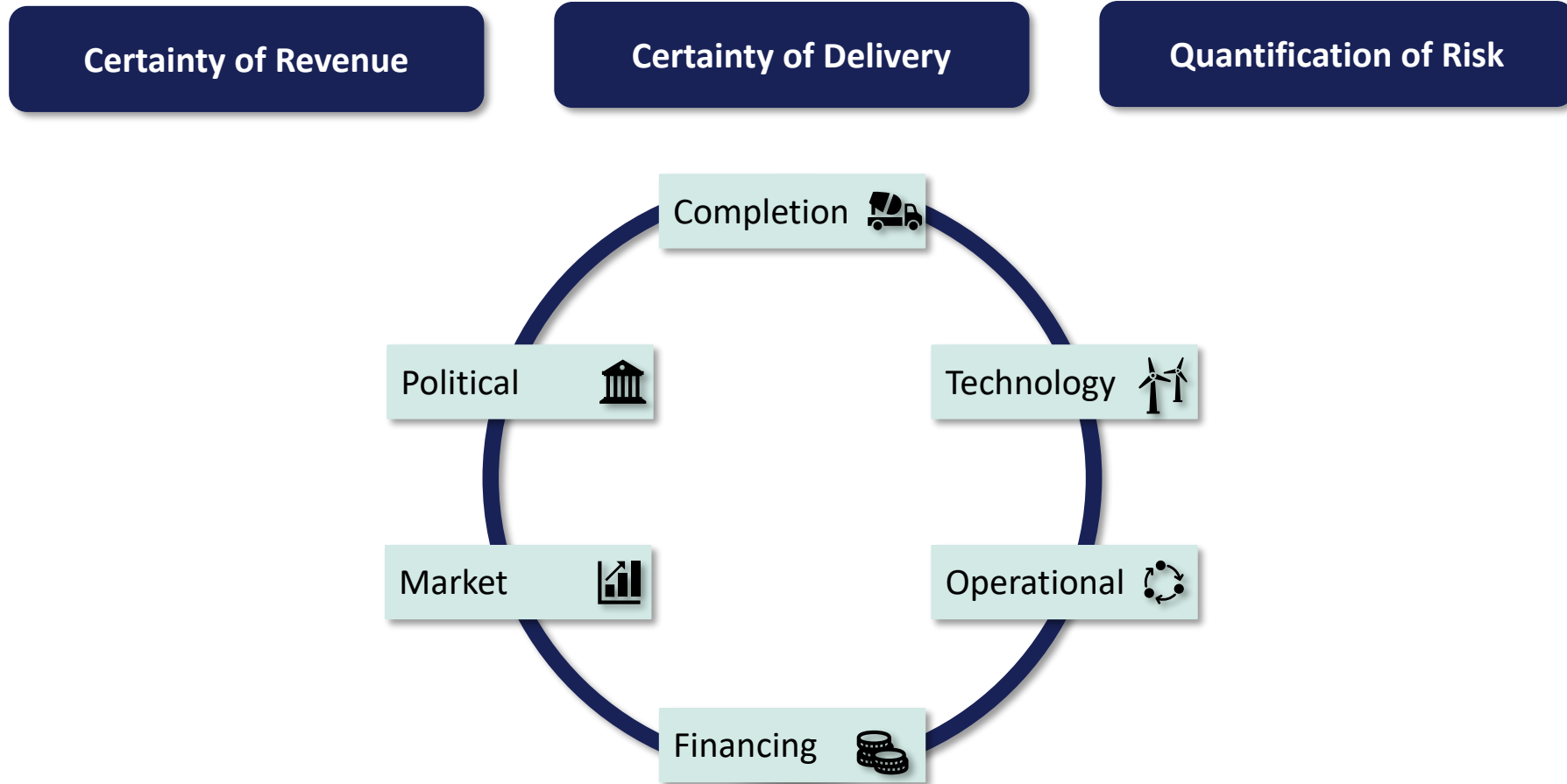
Corporate Rating

LTV / Multiple

Limited Due Diligence

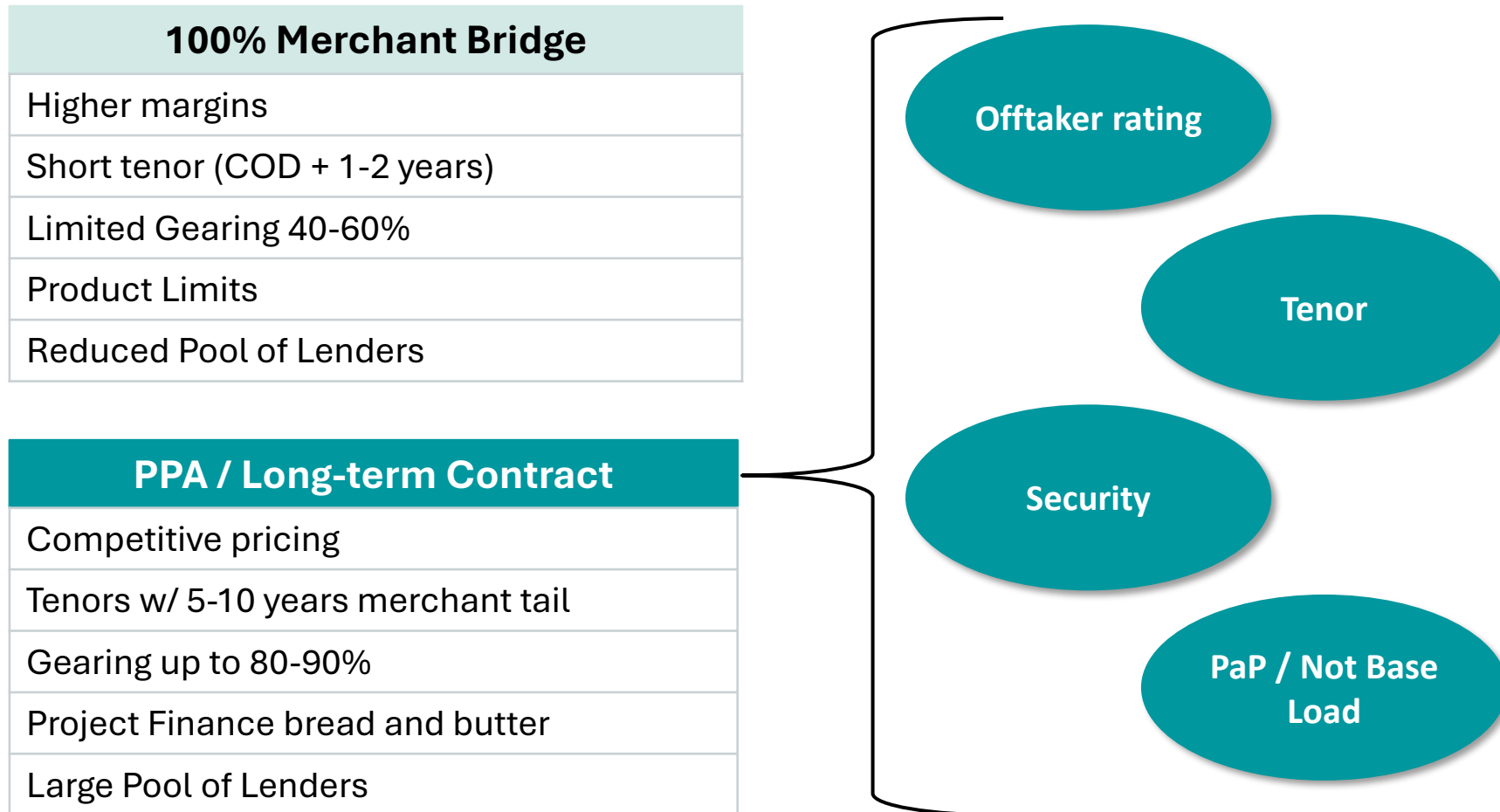
Project Finance Risk View

Assessment of a Project to Secure Credit Approval



PPA vs Merchant Structures

Secured long-term offtake increases the variety and availability of Project Finance



Missing Piece: Large Scale Subsidy Scheme

Case Study from UK & Ireland

RESS / ORESS

Since 2020

15-year partially-indexed contract

1.3GW awarded in RESS 4 to 27 projects
0.6GW awarded in RESS 3

Target 2030: 80% renewable electricity



CfD ARx

Since 2014

15-year index linked contracts

9.6GW awarded in AR6 to 131 projects
3.7GW awarded in AR5

Target 2030: 100% renewable electricity



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Energy Origination

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Thank you