Wind Energy:
The challenge of auctions in Spain.

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Director of Energy Policies

23 October 2020
A demanding scene

**NECP targets**
- 50 GW of wind power by 2030

**Legacy**
- > 21,000 wind turbines by 2020

**LCOE. Need for reduction**

**Grid integration**
- Grid codes, system operation

**Competitiveness**

**Data management. Greater demand**

**Lifetime Extension - Production**

**NEED FOR FIRMNESS**

**ACCESS AND CONNECTION REGULATION**

**SECURITY OF ASSETS AND DATA (CIBER)**

**Auctions**

**Grid use, growth and evolution**

**Market – Combining technologies – HYBRIDISATION**
- Intraday, Continuous, Future,...
- + Storage

**FLEXIBILITY**

**GREATER DEMAND!!**

**New average 2.2 GW/year!!**
Evolution of wind power in Spain

Evolución anual y acumulada de la potencia instalada en España

Feed-in-tariffs

Auctions

Lorem Ipsum Dolor
The supply chain of the wind power industry

- The Spanish wind power industry is a **significant case** of industrial development and supply with a **100% presence in the value chain**.

<table>
<thead>
<tr>
<th>Consultancy and studies. Development and resource evaluation</th>
<th>Engineering</th>
<th>Wind turbine and component manufacturing</th>
<th>Logistics</th>
<th>Construction and assembly</th>
<th>Turnkey</th>
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<td>- Consolidated leadership</td>
<td>- Manufacturing ability and location</td>
<td>- Specific equipment</td>
<td>- International prestige</td>
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**AEE**

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The evolution of wind subsectors 2005-2019

Source: Deloitte
NECP, roadmap to 2030

The Plan foresees for 2030 a total installed capacity in the electricity sector of **161 GW** of which **50 GW will be wind power**

The weight of **Renewable energies** in the final Energy consumption evolves from the current **20% to 42% in 2030**
Thank you for your attention
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