GWEC
GLOBAL WIND ENERGY COUNCIL

Press Release

Wind Industry enjoyed its second-best year but scaling-up for Net Zero requires policy breakthrough

风电装机为历史第二高，但需要政策突破来推动加速发展从而实现零碳目标

Record years for several regions and offshore wind reflect strong market growth, but installations must still quadruple by the end of the decade to meet a net zero pathway.

多个地区及海上风电的创历史新高反映了市场的强劲增长，但若想保证全球净零排放的如期实现，到这个十年末，风电年装机量必须翻两番。

- Nearly 94 GW of new capacity is the second-best year ever for the wind industry
- **2021年全球新增近94 GW风电装机，为历史第二高年份**
- Europe, Latin America, and Africa & the Middle East had record years for new installations
- 欧洲、拉丁美洲、非洲及中东地区创历史最高新增装机纪录
- The best year ever for offshore wind, with huge numbers in China and growing floating offshore deployment in the UK
- 海上风电新增装机为历史新高，中国增量惊人，英国漂浮式风电安装量持续增长
- Auctioned capacity was up 153% with 88 GW awarded globally
- 全球风电招标量为88 GW，上升153%
- CAGR for wind installations for the next five years is 6.6%, which equates to 557 GW forecast installations from 2022-2026
- 预计未来五年（2022-2026）全球风电新增557 GW，复合年均增长率为6.6%
- Despite two years of record numbers, this simply isn't enough to stay on course for 1.5C and net zero by 2050.
- 虽然过去两年风电增量都在历史高位，但若想实现本世纪末全球温升1.5℃以内及2050年净零排放，这个发展速度是远远不够的
- The current global situation means energy policy is in flux, but new policy initiatives must rapidly increase the trajectory for wind installations for both net zero aims and energy security.
- 在当前的全球形势下，能源政策也处于不断变化中，新的政策必须要能够推动风电的快速发展，从而实现净零排放并保证能源安全

4 April | The wind industry enjoyed its second-best year ever in 2021, with almost 94 GW of capacity added globally despite a second year of the COVID-19 pandemic. This is just 1.8% less than the year-over-year wind energy growth rate in 2020. This is a clear sign of the incredible resilience and upward trajectory of the global wind industry. However, as the Global Wind Report 2022 [link] from the Global Wind Energy Council [link] makes clear, this growth needs to quadruple by the end of the decade if the world is to stay on course for a 1.5C pathway and net zero by 2050.

2022年4月4日，西班牙毕尔巴鄂：2021年是全球新冠疫情的第二年，风电行业依然实现了近94 GW的风电新增装机，为历史第二好成绩。相比于2020年，全球风电新增装机量仅下降了1.8%，这再次证明了风电行业的强大韧性和上升态势。但全球风能理事会（GWEC）的《全球风能报告2022》清晰地指出，若想实现本世纪末全球温升1.5℃以内及2050年净零排放，到这个十年末，风电的年安装量必须翻两番。

Global capacity increased by 93.6 GW to bring total cumulative wind power capacity to 837 GW, which is year-over-year growth of 12%. While the world's two biggest markets, China and the US, installed less new **onshore wind** capacity last year - 30.7 GW and 12.7 GW respectively - other regions enjoyed record years. Europe, Latin America and Africa & the Middle East, increased new onshore installations by 19%, 27% and 120%, respectively.
2021年，全球风电装机新增93.6 GW，累计装机量达到837 GW（较上一年增长12%）。中国及美国这全球两个最大风电市场的陆上风电新增安装量有所下降，分别为30.7 GW和12.7 GW，但其他地区纷纷创造历史新高。欧洲、拉丁美洲、非洲及中东的陆上新增装机分别增长了19%、27%及120%。

The **offshore wind** market enjoyed its best-ever year in 2021, with 21.1 GW commissioned. That represents three times more than the previous year. China's mammoth year of offshore installations accounted for 80% of that growth, helping it pass the UK as the world's largest offshore wind market in cumulative installations.
海上风电市场在2021年实现了21.1 GW的新增并网（为2020年的三倍多），创造了历史最好成绩。中国一枝独秀，其海上风电增量占全球的80%，这也让中国超越英国成为全球海上风电累计装机最多的国家。

The impact of COVID-19 was clear, with a slowdown in project commissioning in markets such as the US, India and Taiwan, for example. However, auction activities in 2021 demonstrated that growing wind deployment was a key strategy for many countries. Auctioned capacity was up 153% on 2020, with 88 GW awarded globally. Onshore wind makes up 69 GW (78%) of that, with offshore counting for 19 GW.
新冠疫情的影响显而易见，美国、印度、中国台湾等市场的项目交付都有所放缓。但2021年的招标活动说明加快风电配置是很多国家的重要战略。相比2020年，全球风电招标量上升了153%，达到88 GW，其中陆上风电为69 GW（占78%），海上风电为19 GW。

Wind is on a positive growth trajectory, but wind energy is not growing nearly fast or widely enough to realise a secure and resilient global energy transition. At current rates of installation, GWEC Market Intelligence forecasts that by 2030 we will have less than two-thirds of the wind energy capacity required for a 1.5°C and net zero pathway, effectively condemning us to miss our climate goals.[1]
风电正处在上升通道中，但若想实现安全且有弹性的全球能源转型，现在的增长速度和广度都不够。GWEC市场信息平台（GWEC Market Intelligence）预测，如果按

[1] 国际能源署（IEA）的《2050净零排放路线图》所描述的全球发电结构为：风电（35%）、光伏（33%）、水电（12%）、核电（8%）、生物质能（5%）、氢能（2%），以及化石燃料及碳捕获和储能（2%）。国际可再生能源署（IRENA）的《世界能源转型展望：1.5℃路径》指出，风电和光伏将占全球发电装机的三分之二（2050年风电装机8,174 GW，光伏装机14,878 GW，风电在全球发电量占比中略占优势），其他发电方式包括水电、生物质能、地热能、潮汐/波浪能及氢能。

照现在的发展速度，到2030年全球风电装机量将不足1.5℃及净零排放路径所需风电容量的三分之二，这实际上将使我们无法实现气候目标。[1]

Ben Backwell, CEO of GWEC, said: "The wind industry continues to step up and deliver, but scaling up growth to the level required to reach Net Zero and achieve energy security will require a new, more proactive approach to policy making around the world.
GWEC首席执行官Ben Backwell说："风电行业继续保持良好发展态势，但要想提高到实现净零排放和能源安全所需的水平，还需要一种新的、更积极的方式来制定世界各地的政策。"

"Decisively addressing issues such as permitting and planning will unlock economic growth and create millions of jobs by letting investment flow, while allowing rapid progress on our climate goals. If we carry on with "business as usual", however, we will miss this unique window of opportunity."
"果断地解决许可及规划等问题可以保证投资的流动，从而促进经济增长并创造数以百万计的就业机会，同时能更快速地实现气候目标。如果继续持有'一切照旧'的态度，我们将错过这个唯一的机会窗口。"

Backwell added: "The events of the last year, which has seen economies and consumers exposed to extreme fossil fuel volatility and high prices around the world, are a symptom of a hesitant and disorderly energy transition, while Russia's invasion of Ukraine has exposed the implications of dependency on fossil fuel imports for energy security.
Backwell补充道："去年全球经济及消费者经历了化石燃料的波动及原材料的高价格，这表明了能源转型的犹豫和无序，而俄罗斯与乌克兰的冲突则暴露了能源安全对化石燃料进口的依赖。"

"The last 12 months should serve as a huge wake-up call that we need to move decisively forward and switch to 21st century energy systems based on renewables."
"过去的12个月可以看作是一个巨大的警钟，告诉我们应该坚决地转向以可再生能源为基础的21世纪能源系统。"

Xabier Viteri, Director of the Renewable Energy Business of the Iberdrola group, the report's lead sponsors, said: "
本报告主赞助商Iberdrola集团的可再生能源业务总监Xabier Viteri说："

About the report
The report explores how the industry and policymakers can prepare for the next era of wind energy growth, as the sector rapidly scales up to meet net zero demands. As the industry gains scale and mass, its impacts will reverberate in the political, socioeconomic and environmental settings in which it operates. As it grows, the industry will also confront old and new frontiers like supply chain geopolitics, social impacts, disinformation and system resilience.

关于报告
本报告探讨了风电行业及政策制定者如何为风电发展新时代做好准备，风电将实现快速发展以满足零碳排放需求，而这种规模扩大将对政治、社会经济及环境产生影响。伴随着发展，行业还要面对供应链地缘政治、社会影响、虚假信息及系统弹性等领域的问题。

Ten takeaways from the Global Wind Report, explained in greater detail in the report:
如下为《全球风能报告2022》的十个要点，在报告中有更详细的解释：

1. **Scaling up to 2030**: There needs to be a four-fold increase in new wind energy installations this decade to keep on track for a 1.5°C world.
   加速发展：到这个十年末（2030年），风电年装机量需要达到现在的四倍，以保证全球1.5℃温升目标的实现。
2. **The energy system is increasingly complex and interconnected**: Countries and communities must work together for an effective response to climate change.
   能源系统日益复杂和相互关联：国家和社区必须共同努力来有效应对气候变化。
3. **System design is struggling to meet the pressures of the transition**: The current energy crisis is the consequence of energy markets built around fossil fuels.
   系统设计正在努力应对转型的压力：当前的能源危机是围绕化石燃料建立的能源市场的结果。
4. **The wind industry faces higher costs amid perverse market design**: Policymakers need to re-evaluate markets to align with economic and social objectives.
   风电行业在不当的市场设计中面对更高的成本：政策制定者需要重新评估市场以符合经济和社会目标。
5. **Wind energy must be a custodian of the energy transition**: The industry must ensure that social and environmental values are synonymous with wind power.
   风能应成为能源转型的守护者：行业必须确保社会和环境价值是风能的代名词。
6. **Cut the red tape for a green future**: Without streamlining the procedures to grant permits, including land allocation and grid connection projects will remain 'stuck in the pipeline'.
   减少繁文缛节，打造绿色未来：如果不简化审批程序，包括土地分配和并网，风电项目将停滞不前。
7. **Public-private cooperation is needed to confront the new geopolitics of the wind supply chain**: There must be a stronger international regulatory framework to address the increased competition for commodities and critical minerals.
   需要公私合作来应对风电供应链的新地缘政治：必须有一个更强大的国际监管框架来解决对大宗商品和关键矿产的日益激烈的竞争。
8. **The demise of baseload**: Flexibility will be the chief currency of a renewables-led system, and policymakers must send signals to the market that they will invest in the tools for this.
   基本负载的消失：灵活性将成为以可再生能源为主导的系统的主要货币，政策制定者必须向市场发出信号，表明他们将为此投资相关工具。
9. **Unprecedented grid investment is needed to keep pace with renewables**: Investment in grids must treble from current levels through to 2030.
   需要前所未有的电网投资来跟上可再生能源的步伐：到 2030 年，电网投资需要达到当前水平的三倍。
10. **The wind energy industry has a primary role in a just and equitable energy transition**: Workforce planning for large-scale renewables deployment should be an early policy priority.
    风能产业将在公平合理的能源转型中发挥着主要作用：为大规模可再生能源发展而规划劳动力应该是早期的政策重点。

About GWEC

Global Wind Energy Council (GWEC) is a member-based organisation that represents the entire wind energy sector. The members of GWEC represent over 1,500 companies, organisations and institutions in more than 80 countries, including manufacturers, developers, component suppliers, research institutes, national wind and renewables associations, electricity providers, finance and insurance companies. Find out more: www.gwec.net

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