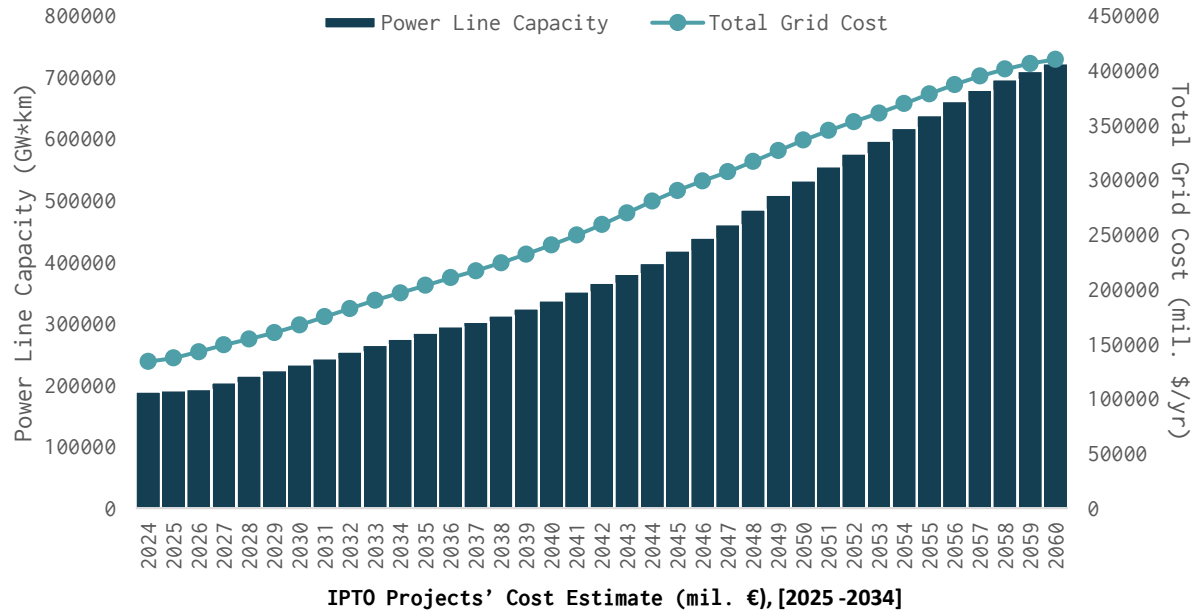




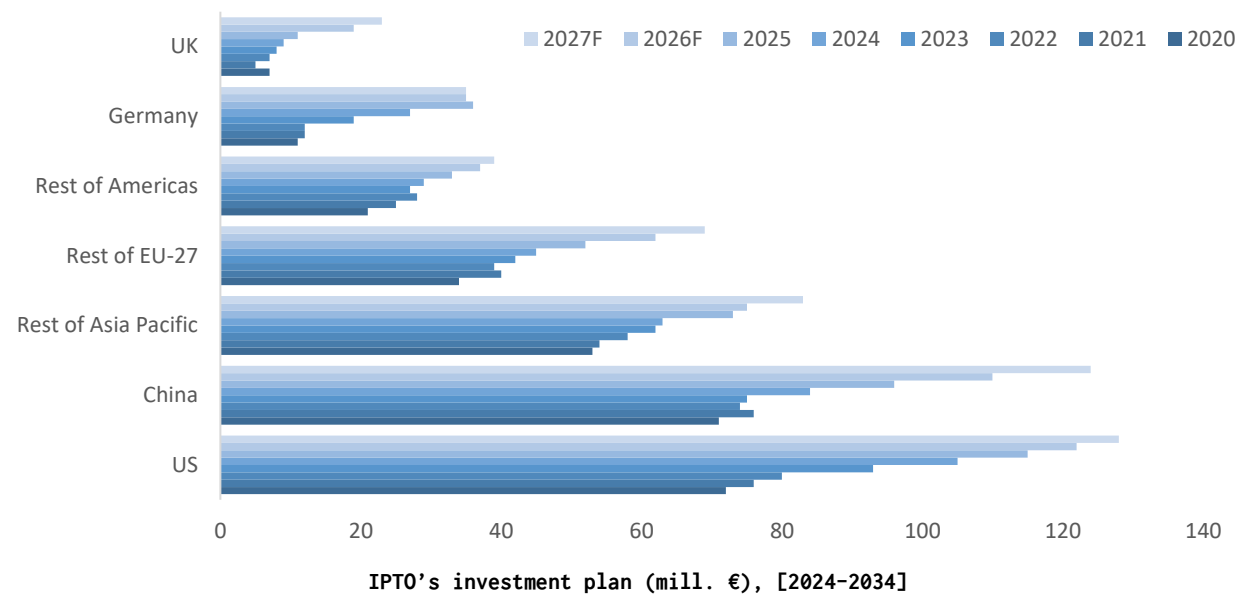
Connecting to the Future: Investing in Grids

Vol.41 Connecting to the Future: Grid Investments

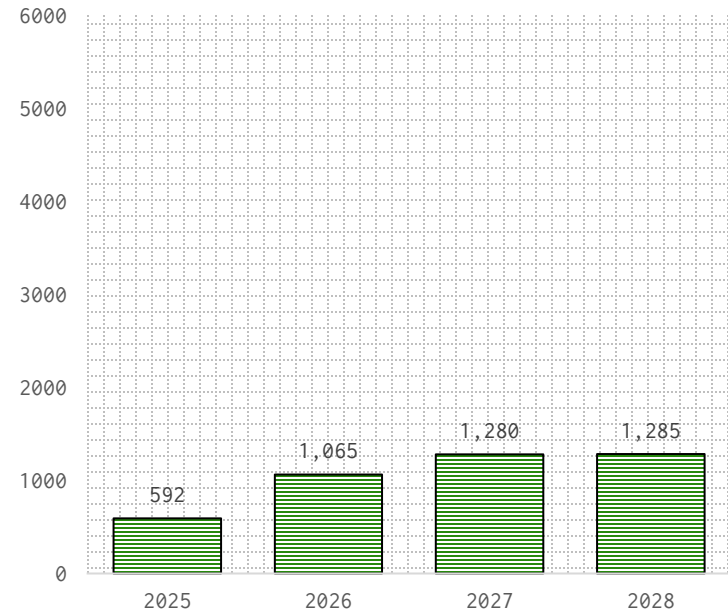
Global power line capacity (GW*km) and total grid cost (mil. \$/yr) projections, [2024-2060]



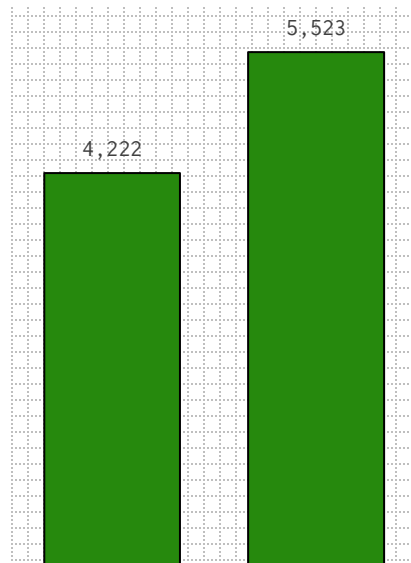
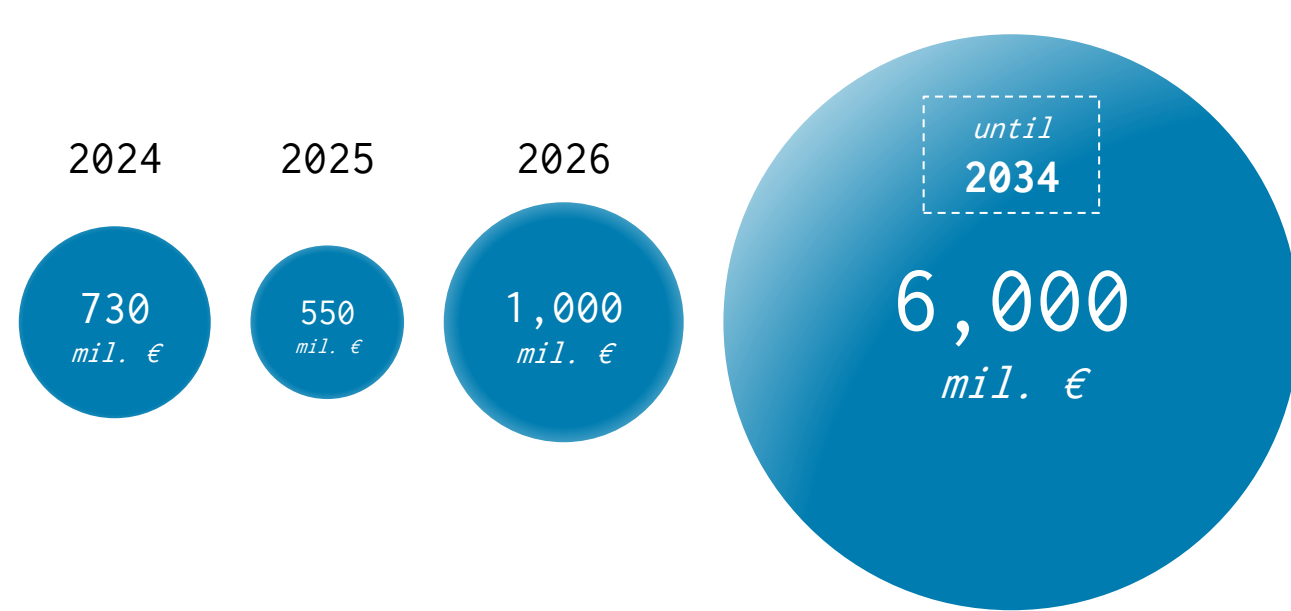
Global Grid Investment (bil. \$) by Country and Region, [2020-2027F]



IPTO Projects' Cost Estimate (mil. €), [2025-2034]



IPTO's investment plan (mil. €), [2024-2034]



Global transmission capacity is projected to expand through 2060, driven by accelerated electrification and the integration of renewable energy sources. The grid serves as the backbone of the energy transition and is essential for maintaining a reliable energy system. As a capital-intensive infrastructure, it requires sustained, long-term investment planning to support ongoing development and modernization.

Rising Grid Demand

Grid investment is concentrated in major economies, with the US and China leading due to their large consumption needs. Europe follows with fragmented but growing contributions. This pattern reflects both system scale and policy priorities, as larger markets and faster transitions require higher infrastructure spending.

Regional Investment Leaders



Greece Scaling Up

Decade Investment Surge

IPTO's investment strategy highlights Greece's commitment to modernizing and expanding its grid, with a focus on renewables, interconnections, and system resilience, aligned with national and EU energy targets.

Cumulative investments of €6 billion by 2034 underscore the scale of Greece's grid transformation. The marked acceleration between early and later periods signals a shift from incremental upgrades to large-scale infrastructure deployment, supporting long-term energy transition objectives.



HELLENIC ASSOCIATION
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