

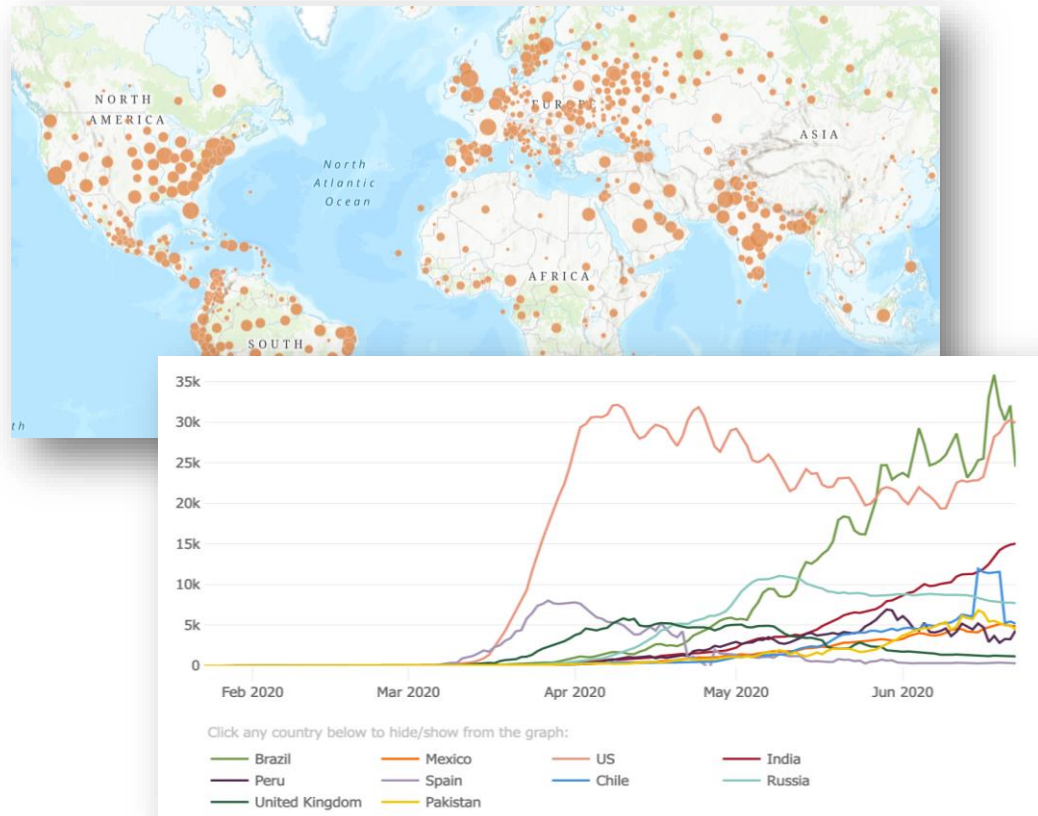
COVID-19 and the Power Industry

Setting the Scene

Aidan Tuohy, Eamonn Lannoye
EPRI Grid Operations and Planning

ESIG Meteorology & Market Design for Grid Services
Workshop
June 29, 2020





Active and daily confirmed cases (June 23): Source Johns Hopkins

Global Pandemic Webcasts

- 21 webcasts
- 7400+ participants
- 360+ companies

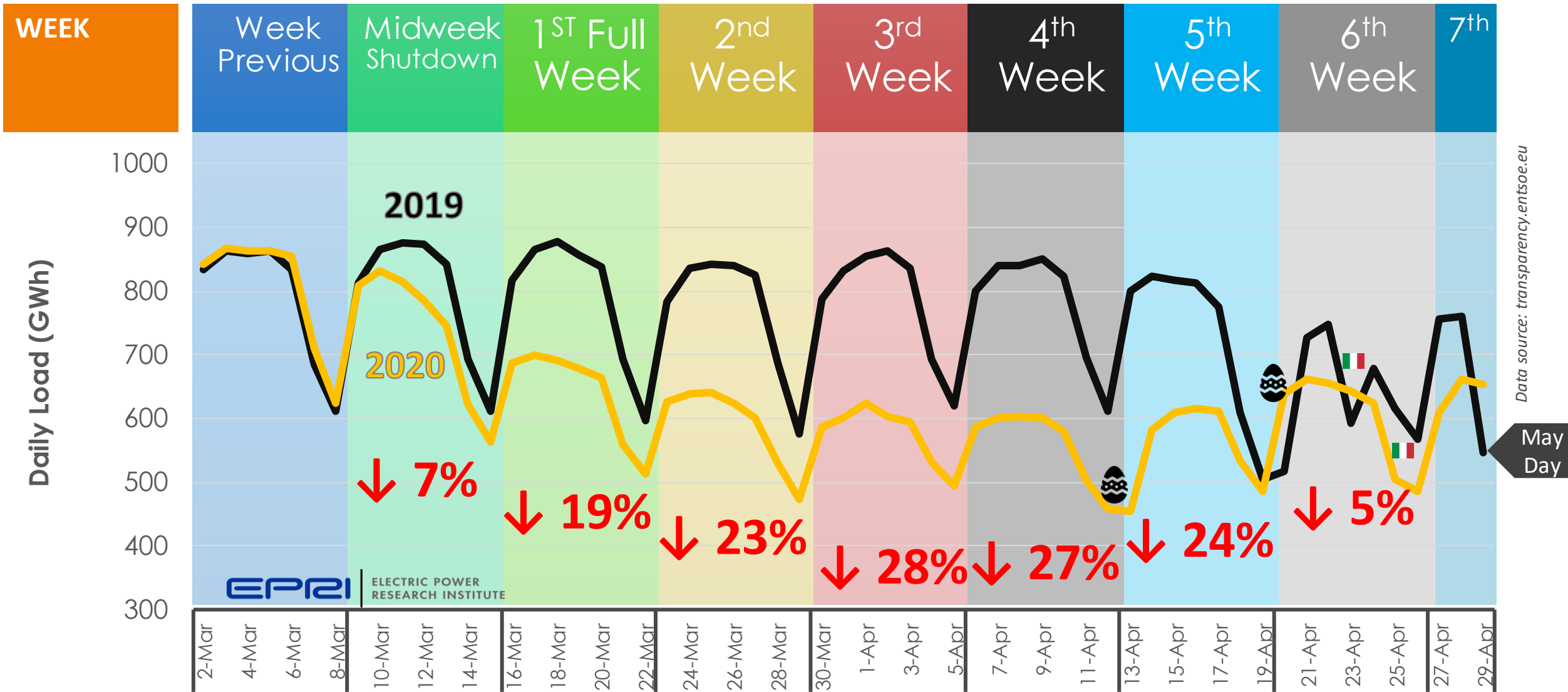


Topics addressed

- Demand and energy analysis
- Operating impacts
- Mitigation practices

Using global reach to gain insights and share with wider audience

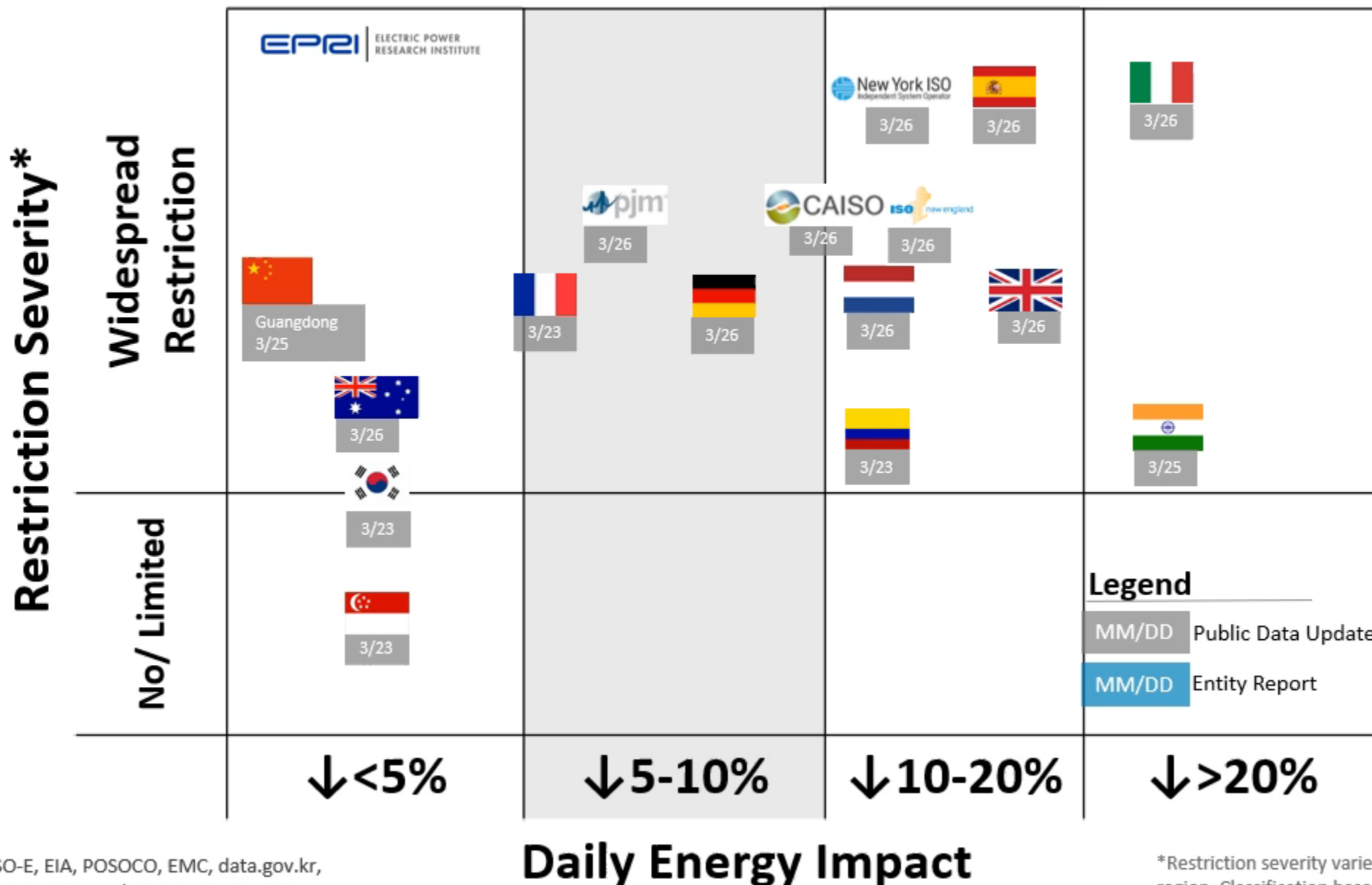
Italian Electricity Demand over 5 weeks – 2019 vs 2020



Weather and economic growth impacts not considered but clear trend observable

COVID-19 Demand Impact Classification

Effective: Mar 27th



Data Sources: ENTSO-E, EIA, POSOCO, EMC, data.gov.kr, XM, bix.com.cn, RTE, ISA, Transgrid, AEMO, CAISO, PJM

Daily Energy Impact

*Restriction severity varies substantially from region to region. Classification based on media reported restrictions

Pandemic Resilient and Sustainable T&D Systems

Work Process, Facility Design,
Remote Operation, Spares



Health Monitoring, Testing,
Disinfecting

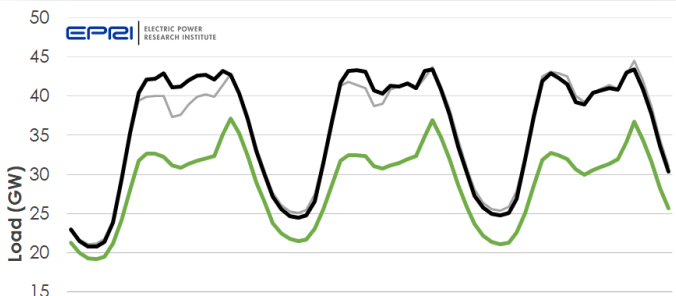


T&D Control
Center, Field
Operation,
Asset Mgmt
Strategies

Health and
Disinfectant
Technologies
for T&D
Applications

Demand
Impacts and
Operating
Challenges

Renewables
and Carbon
Reduction
Goals



Demand Forecasts and Op.
Impact Mitigations



Decarbonization and
Sustainability

New EPRI research initiative to collaboratively address the common global needs for pandemic resilient and sustainable T&D strategies.

Together...Shaping the Future of Electricity

Information and disclaimers about analysis

- **US and European Analysis based on publicly available data from ENTSO-E and EIA:**
 - <https://transparency.entsoe.eu/> (account needed to download)
 - <https://www.eia.gov/opendata/>
 - Other countries based on data provided to us directly
- **Other factors are not considered but likely to impact load levels**
 - Temperature
 - Behind-the-meter resources, etc.
 - Underlying, non-COVID economic factors
- **EPRI continues to monitor and update this information**