

Applied Grid Transformation Solutions (AGTS)

Fernando Palma

6/27/23

+ What is AGTS?

- + Is a new program in FY2023
- + It will address the need to rapidly validate and deploy new systems in a controlled environment to drive adoption
- + Application of integrated pilots in the T&D environment to validate the new technology and achieve stakeholder objectives
- + One or more integrated pilots
- + Work with different stakeholders to ensure the scope and outputs will be useful to the targeted decisionmakers
- + Grid test beds

+ Grid national test bed capability

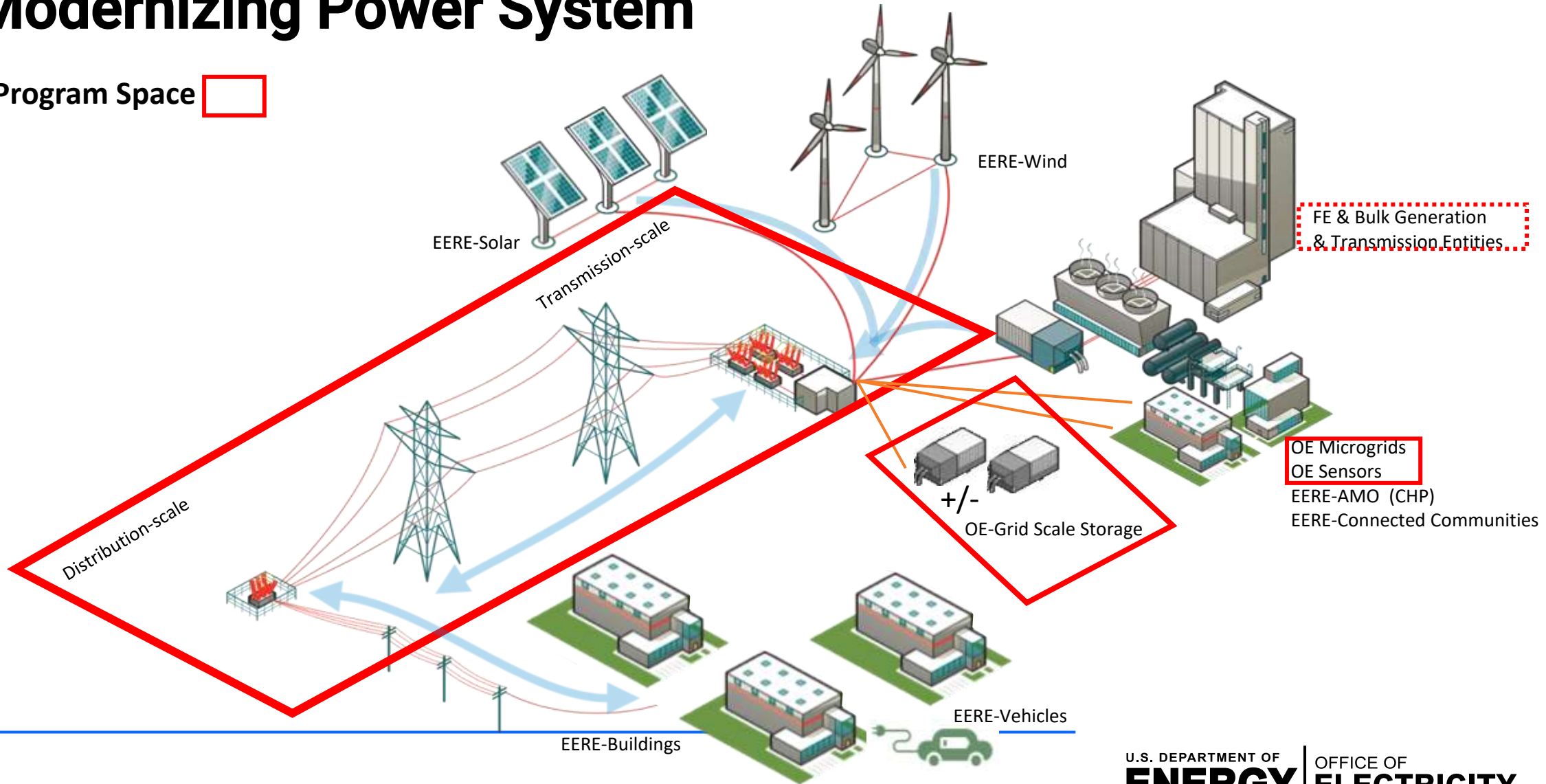
- + Scan for current test bed capabilities in National labs and industry
 - + Information collected will be posted in a website for everyone to use
- + Scope and develop future test bed capabilities needs
 - + Can be SST, advanced conductors
- + All capabilities can be a collaboration with internal DOE, national labs and industry stakeholders.
- + Results to be posted in a webpage to share with everyone

+ Technologies, but not limited

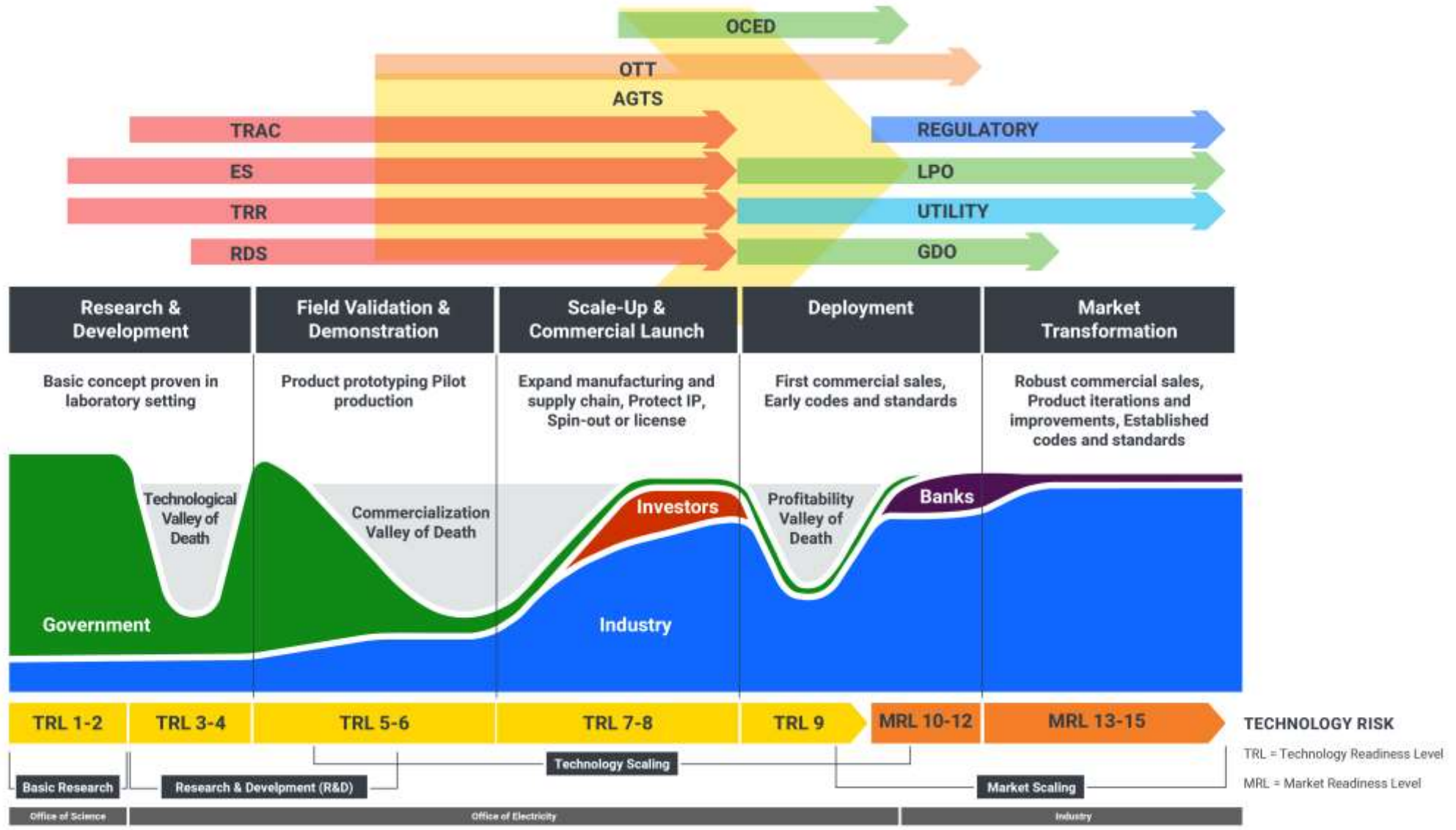
- + High voltage direct current (HVDC)
- + Modular large power transformers (LPTs)
- + Dynamic line rating and dynamic transformer rating
- + Power flow controllers (PFCs)
- + Sensors and visibility
- + Topology control algorithms
- + Energy storage
- + Power electronics
- + Microgrids

AGTS Program addresses essential areas in the Modernizing Power System

AGTS Program Space 



AGTS in TRL



+ Current 2023 activities

- + EERE-OE (AGTS) collaboration FOA for advance conductor validation and demonstration. Subtopic 1.1b is part of the larger \$52M FOA released in the beginning of the year.
 - + DOE's Office of Electricity (OE) is supporting a subtopic under a recently released Office of Energy Efficiency and Renewable Energy (EERE) funding opportunity announcement (FOA) for \$52 million to accelerate the deployment of conductivity-enhanced materials in advanced conductor systems for powerlines.
- + FOA on grid enhancing technologies
- + Commercialization pathway report for grid technologies
- + Superlab 2.0
 - + Mix of simulated grid and real grid.
 - + Links all the Digital Real-Time Simulators and hardware/software assets at national labs (hundreds of miles apart) together.
 - + "SuperLab 2.0 will be the biggest energy experiment yet" – Darren Orf ([U.S. Government Builds Super Lab to War Game the Electrical Grid \(popularmechanics.com\)](#))



Questions?

Contact Information:

Fernando Palma
Program Manager
Office of Electricity
U.S. Department of Energy
240-597-6507
Fernando.palma@hq.doe.gov



Fernando Palma

Program Manager

Office of Electricity



www.energy.gov/oe/



Twitter



LinkedIn



Facebook



Sign Up for Office of
Electricity Email Updates