

Center for Integrated Electrical Energy Systems



Division of
Science, Technology
& Innovation



Outline

- Centers for Advanced Technology (CATs) in the NYSTAR portfolio
- CAT network in New York State
- CIEES vision
- Working with CIEES:
 - Funding
 - Types of agreement

CATs in NYSTAR programs

Sate R&D:



Fundamental research

Centers of Excellence (CoE)

Federal R&D:



Technology development

Centers for Advanced Technology (CAT)

Product development

Manufacturing Extension Partnership (MEP)

Industry consortia

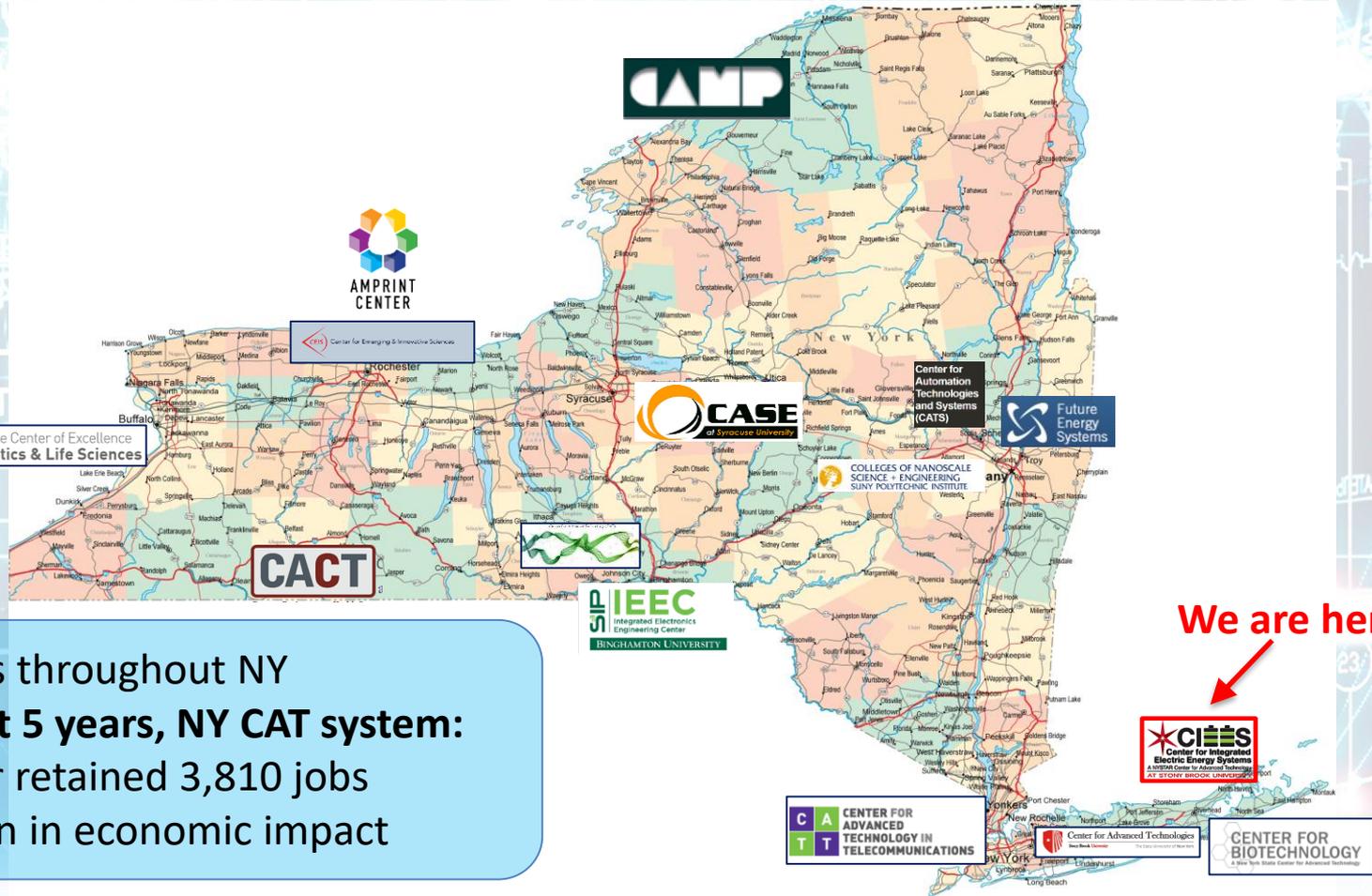


Small business support

Incubator and HotSpot

Matching grants

CAT network in New York State



- 15 centers throughout NY
- Over the past 5 years, NY CAT system:**
- created or retained 3,810 jobs
 - \$2.6 billion in economic impact

Our thrust and vision

THRUST 1

Electric Grid Technology

- Sensors (Leverage Sensor CAT)
- Distribution System Modeling
- Distribution Automation
- Cyber Security (Leverage CEWIT)
- Integration with Existing Distribution Grid

THRUST 2

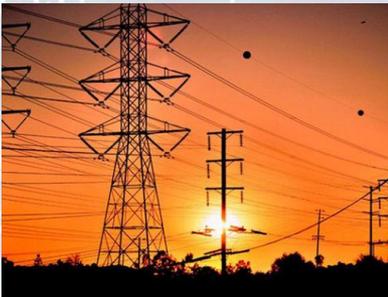
Energy Storage Technology

- New Electrochemistries
- New Materials
- Analytics: Ex-Situ, In-Situ and In-Operando
- Lifetime Quantification and Extension
- System Integration

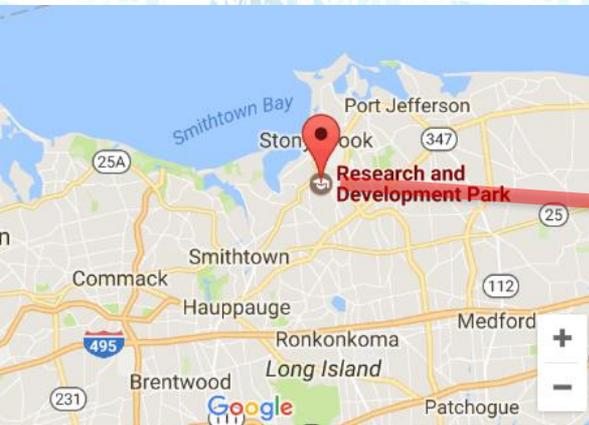
OVERLAP THRUST

Integration of Storage on the Grid

- Testing of Grid Scale Storage Devices
- Device ESH Validation (Environment, Safety, Health)



CIEES facilities



- Research facilities:
 - Stony Brook University, other SUNY centers
 - Brookhaven National Lab
- Coming: energy storage facility

Working with CIEES

Business need:

- New product
- Validation
- Product test

Agreement:

- Research
- Service
- Facility use

Funding

- Business
- CIEES
- Other

Research:

- Development
- Analysis
- Product tests

Economic impact

- New products
- New revenue
- Jobs created

Project budget

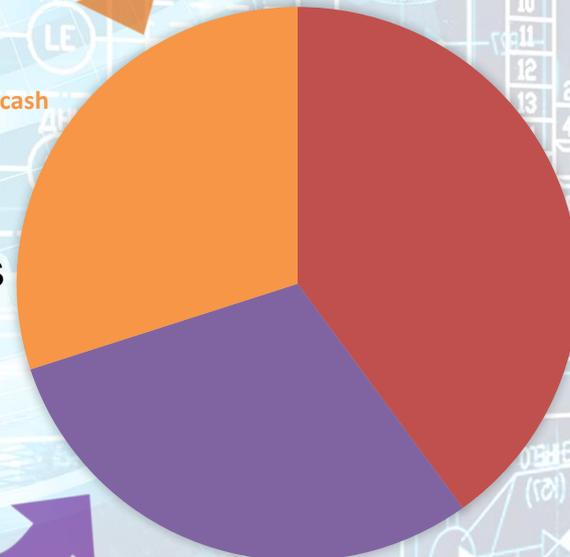
SAMPLE BUDGET



Company cash

CIIES match

Other



- NY state company cash: **50%**
Small NYS cash will be credited at a 2:1 ratio

- Other Sources of Support, less than 50%:
 - Cash from non-New York State Companies
 - Federal cash (SBIR, ARPA-E etc.)
 - Applicant support
 - Donated equipment and unique materials

Types of agreement

- Research agreement
 - Essential development effort by SBU faculty
 - Shared IP (exclusive licensing, option agreements)
- Testing agreement
 - SBU-CIEES provides testing/validation service
 - IP exclusively belongs to the company

Thank you!



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