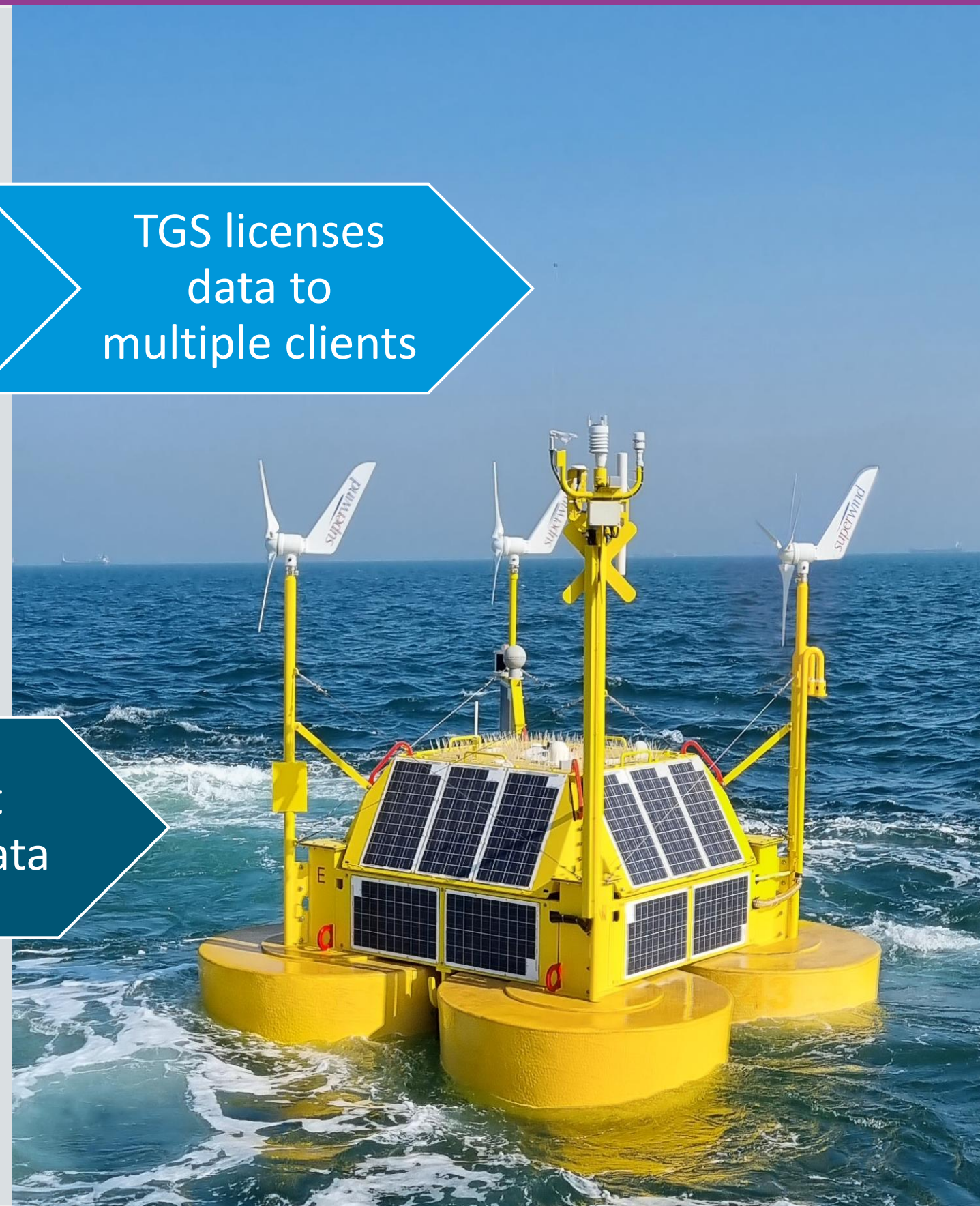


## Five New Floating LiDAR Buoys on the US East Coast

### Multi-Client Business Model



### Proprietary Business Model



### Benefits:

- **Early access to wind energy data**  
Obtain data ahead of lease auctions, enabling early access to data and reducing bidding strategy uncertainty
- **Cost effective**  
Save money with long-term data licenses at significantly reduced cost compared to proprietary campaigns
- **Trusted quality**  
Leverage TGS' network of established partners to provide the best equipment, including Stage 3 buoys
- **No operational risk**  
Rely on TGS to handle the entire process - permitting, deployment, maintenance, data management, etc.

### Current US Deployments

#### Massachusetts

- Leases awarded in 2018
- Complex area required additional data to further de-risk FID

#### New York Bight (two buoys)

- Leases awarded in 2022
- Companies initiating site assessment process
- Significant value in reducing time frame

#### Central Atlantic (two buoys)

- Lease areas to be auctioned in 2024
- Companies developing their bidding strategy
- Significant value in bid preparation and subsequent SAP process timeline reduction

#### Coming soon

- US West Coast, Maine, Nova Scotia

### Floating LiDAR Data Package

#### Wind Resource Data

- Floating LiDAR wind resource time series data at multiple heights, from near-surface up to 300m
- Conforming to IEA published recommended practices (IEA Wind Report RP18)

#### Metocean Data

- Significant wave height, peak and mean wave period, wave characteristics (direction, spectra)
- Water salinity and temperature
- Current speed and direction via downward looking Acoustic Doppler Current Profiler (ADCP)
- Air temperature, pressure, relative humidity, rainfall
- Seabed frame instrumentation:
  - Upward looking ADCP with waves capability
  - Water level recorder for tidal analysis
  - Conductivity, temperature, and depth

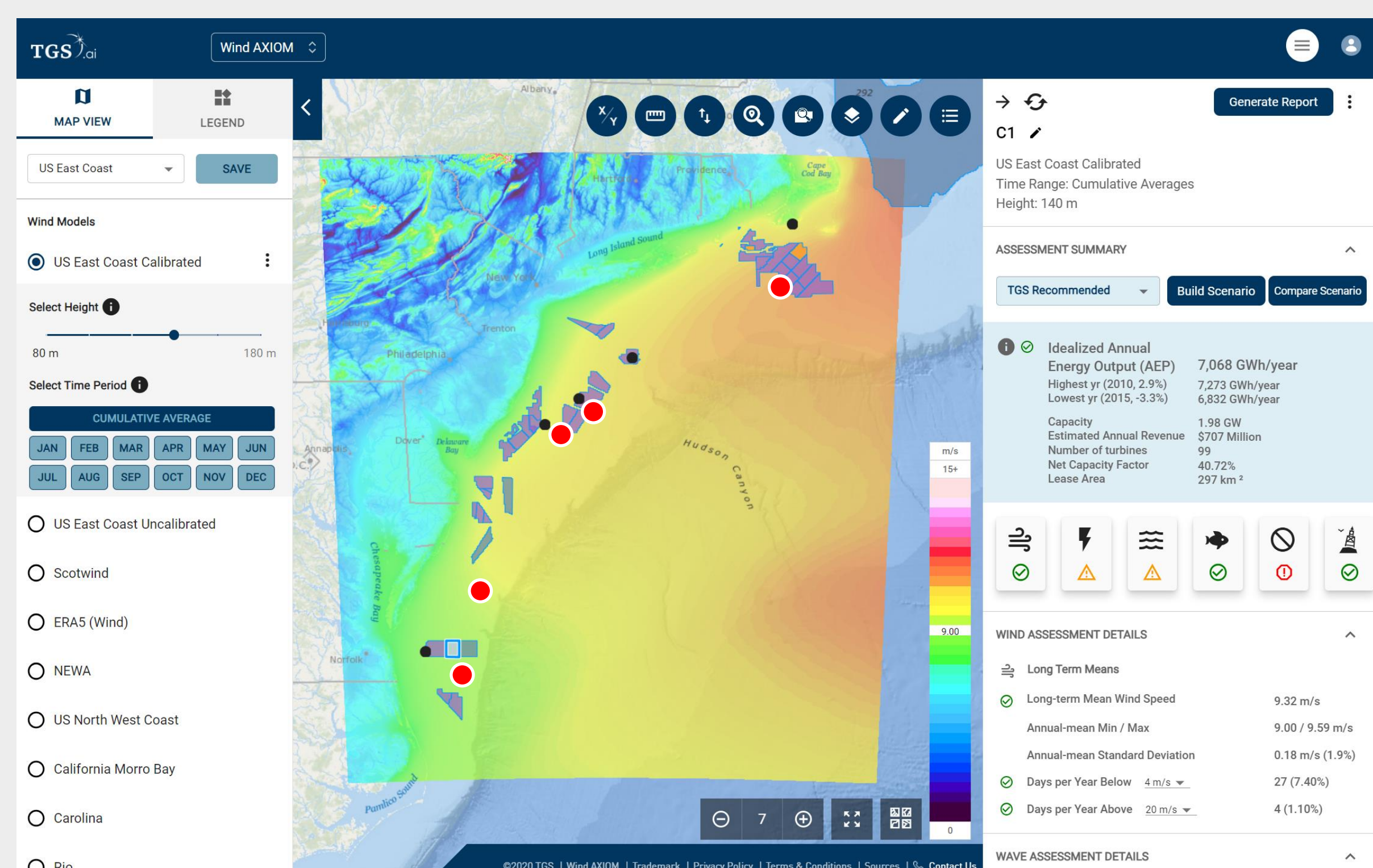
#### Environmental Data

- Bird and bat detection via acoustic recorders
- Marine mammal detection via hydrophones for whales and dolphins
- Bird and fish tag detection

#### Wind AXIOM Subscription

- Online platform for assessing feasibility of offshore wind energy projects
- Access to multiple data sources, including TGS' floating LiDAR data campaigns
- Numerical Weather Prediction model results
  - 13-year simulations conducted at 1km resolution across priority areas; bias corrected using TGS' fleet of floating LiDAR buoys
  - Time series, GIS, and WRG data file exports available

### Wind AXIOM Data and insights platform optimized for offshore wind development



- **Complete**  
TGS aggregates data from multiple sources to provide a comprehensive view on the risk and feasibility of offshore projects.
- **Convenient**  
Managing huge datasets is complicated and expensive; Wind AXIOM removes this burden by providing easy, secure, and cost-effective access.
- **Fast**  
Using TGS' Multidimensional Cloud I/O data architecture, data access is lightning fast reducing practical lead times between questions and answers.
- **Connected**  
Export time series, GIS layers, and wind resource grids (.wrg) for further offline analysis. Connect to flexible and performant APIs to streamline workflows. Share insights with colleagues.

Technology Partners:

