Adding energy-system functionality to a digital twin

We expanded the Digital Urban Climate Twin (DUCT) of the ETH Zurich to enable the real-time simulation of district cooling systems. We also integrated modules from the City Energy Analyst, a tool for analyzing urban energy systems, into the DUCT. This enhancement will help cities and municipalities when it comes to planning carbon-neutral sites and buildings. Cities, municipalities, property owners, and private enterprises all stand to benefit from our consulting services on the tool's application.

Our services

- Development of algorithms for the real-time simulation of thermal networks and storage systems
- Backend and frontend software development
- Setting-up of databases and automated unit-tests
- Provision of training services for planning carbon-neutral sites and buildings
- Provision of consulting services on the tool's application in the planning of carbon-neutral buildings and real-estate portfolios

Client

ETH Singapore Centre

Facts

Period	2020 - 2021
Project Country	Singapore

Contact persons

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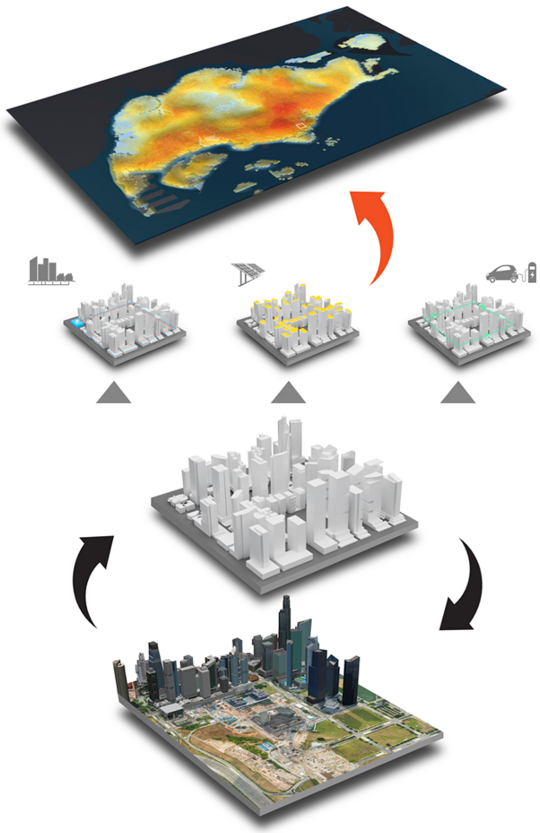
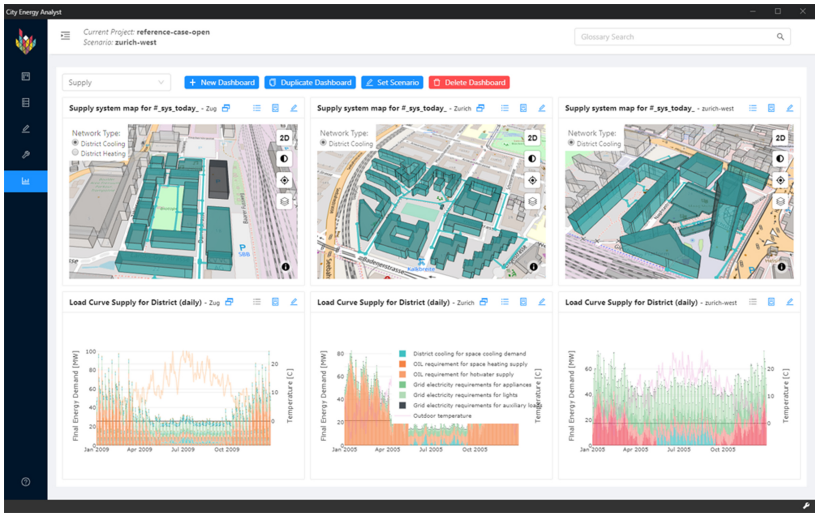


Digital Urban Climate Twin model, Cooling Singapore, 2020



Simulation of Energy Systems