

## INTRODUCTION

The South Landing Campus aims to promote innovation and create a blueprint for a more sustainable future.



The South Landing site will be part of a greater development promoting technology and innovation.

## UNIVERSITY DISTRICT





The Catalyst and HUB will be the first two buildings in a planned development to expand and create more spaces to innovate the future.

## **SOUTH LANDING**



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## **SOUTH LANDING**

## CARBON EMISSIONS In the Building Sector

### BUILDING



Carbon emissions  
from construction  
and building  
operation.

### PLANT



Carbon emissions  
from heating and  
cooling plant  
equipment

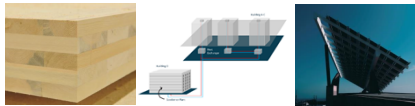
### UTILITY



Carbon emissions  
from source energy  
and energy  
transmission

The Catalyst Building is  
expected to be the largest  
ILFI zero energy certified  
building in the world.

THE CATALYST  
**BUILDING**



CATALYST

## ENERGY REDUCTION MEASURES

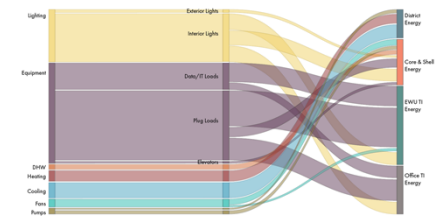
The Catalyst includes a number of key energy efficiency and carbon reduction features such as:

- High performance envelope
- Energy efficient lighting design
- Optimized mechanical systems
- District energy from the EcoDistrict
- On-site & Off-site renewables

INTEGRATED

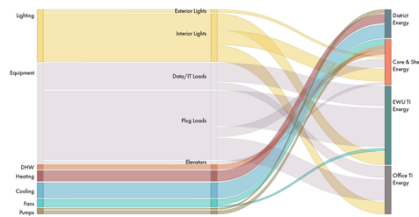
## DESIGN PROCESS

Energy modeling was used early and often to inform the design team on the best decisions with regards to energy. The process for predictive modeling changes compared to the process of comparative modeling.



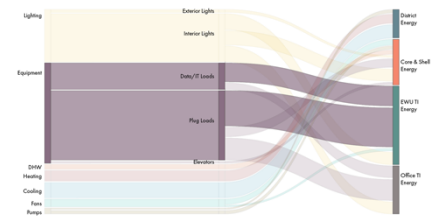
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## INTEGRATED DESIGN PROCESS

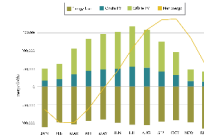
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REDUCED CARBON IN

## MASS TIMBER

The Catalyst is a mass timber building replacing typical construction materials with CLT to reduce carbon emissions.



ONSITE & OFFSITE

## RENEWABLE ENERGY

Buildings like the Catalyst want to be net zero, but due to the building size relative to available site area, there is no technical way to develop enough on-site renewable to get to zero energy.

The International Living Future Institute has provided an offsite renewable exception for projects like the Catalyst. This exception comes with conditions to provide eligibility to best in class projects.

THE ECODISTRICT

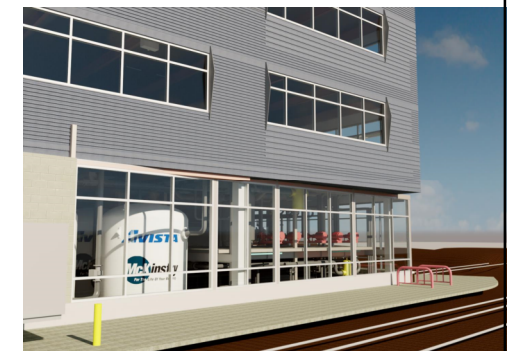
# DISTRICT ENERGY PLANT

The EcoDistrict is a district energy plant serving the South Landing campus. It is a machine learning plant that uses forecasted weather data and building level load trends to optimize the efficiency of heating, cooling, and thermal storage/sharing equipment.

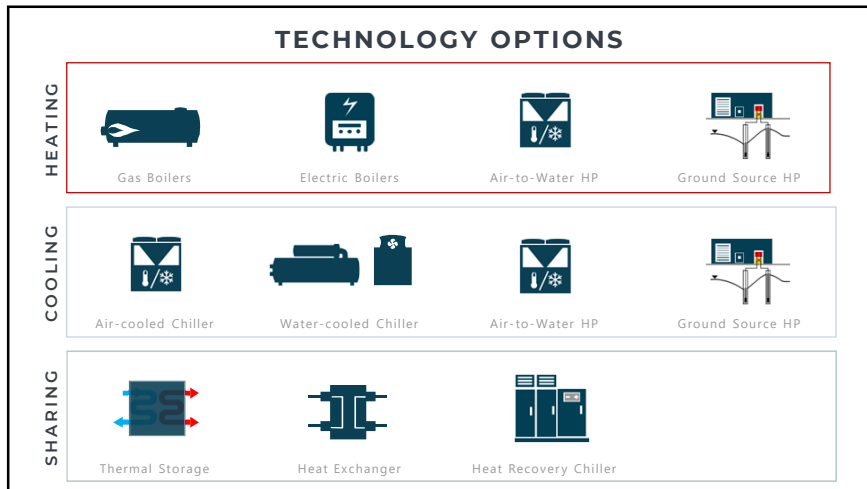
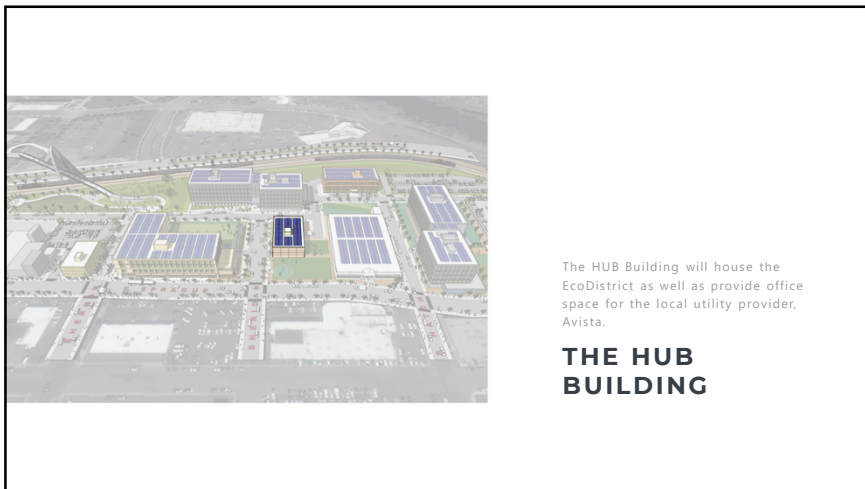
The EcoDistrict is a state-of-art district energy plant that provides heating and chilled water to buildings in the South Landing Campus.

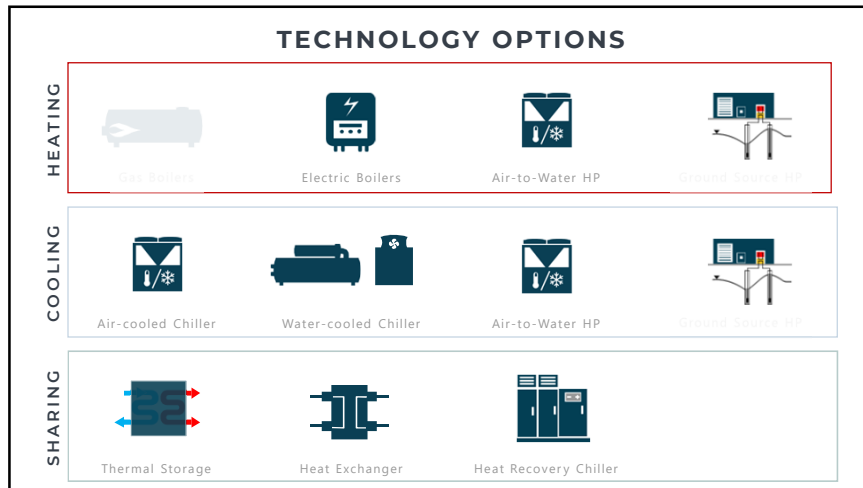
SOUTH LANDING

# ECODISTRICT









Through a partnership with the local utility provider, Avista, the South Landing projects looks beyond site energy. How can we move across the meter to optimize the greater energy system?

## UTILITY PARTNERSHIP

## ENERGY ECOSYSTEM INCENTIVES

