



# District Thinking...And Doing!

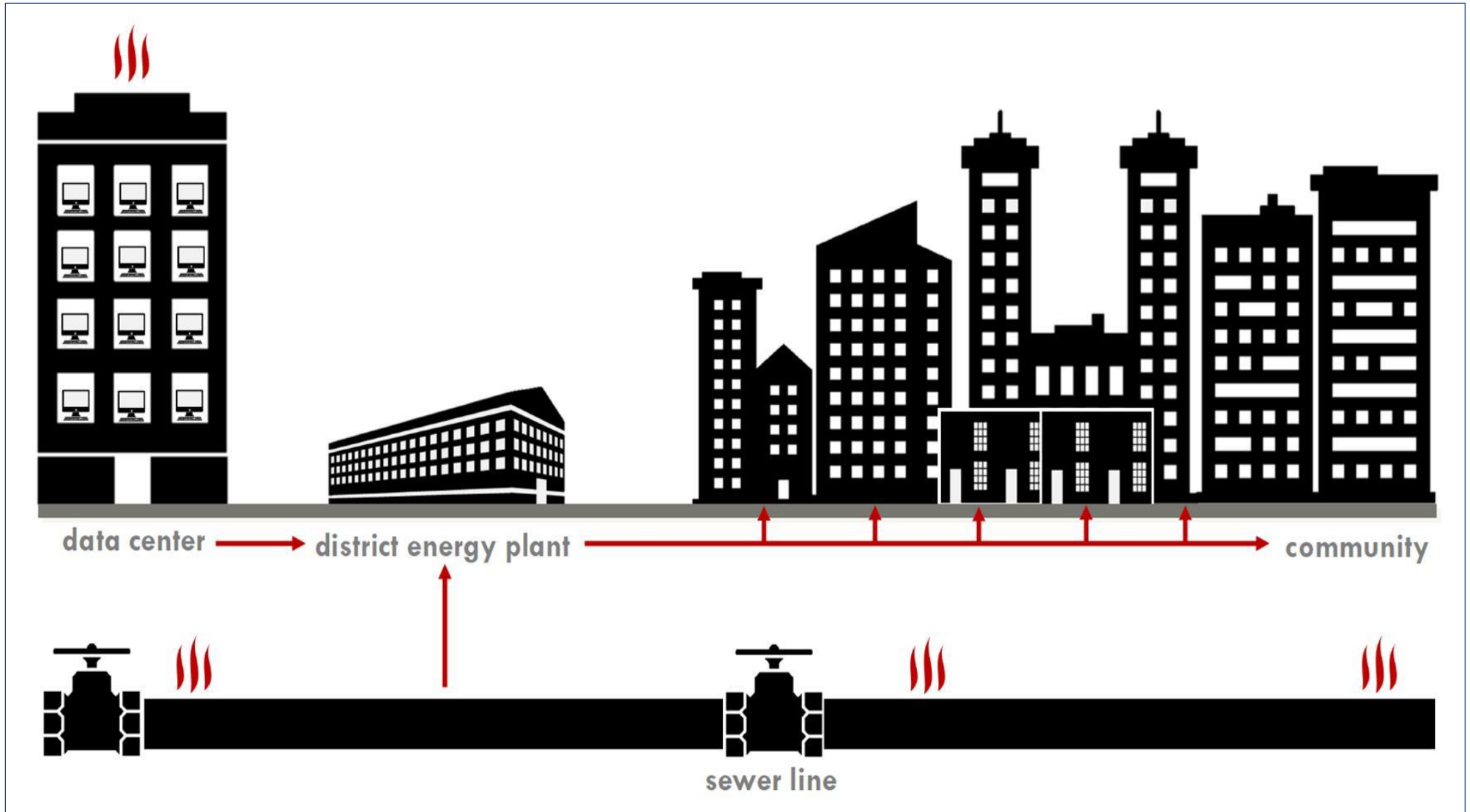
*Waste Heat Recycling from Clise  
Properties Datacenter to Amazon  
Headquarters*

*Tom Marseille, PE, Hon AIA, LEED Fellow  
Jeff Sloan, PE*

12-16-15



# WHY WASTE HEAT DISTRICT ENERGY?





# THE WASTE HEAT RESOURCE



# THE WASTE HEAT CUSTOMER

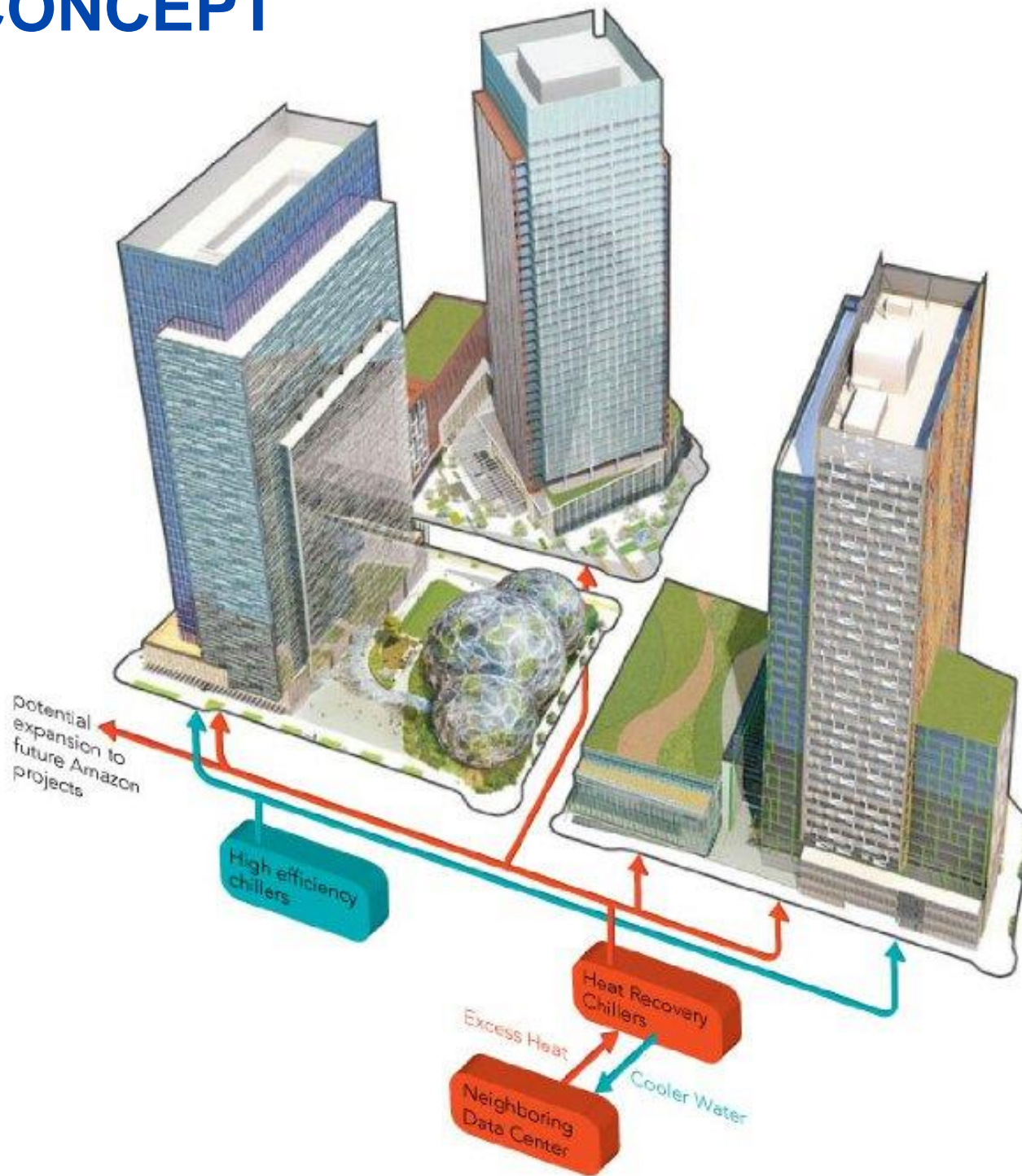


amazon



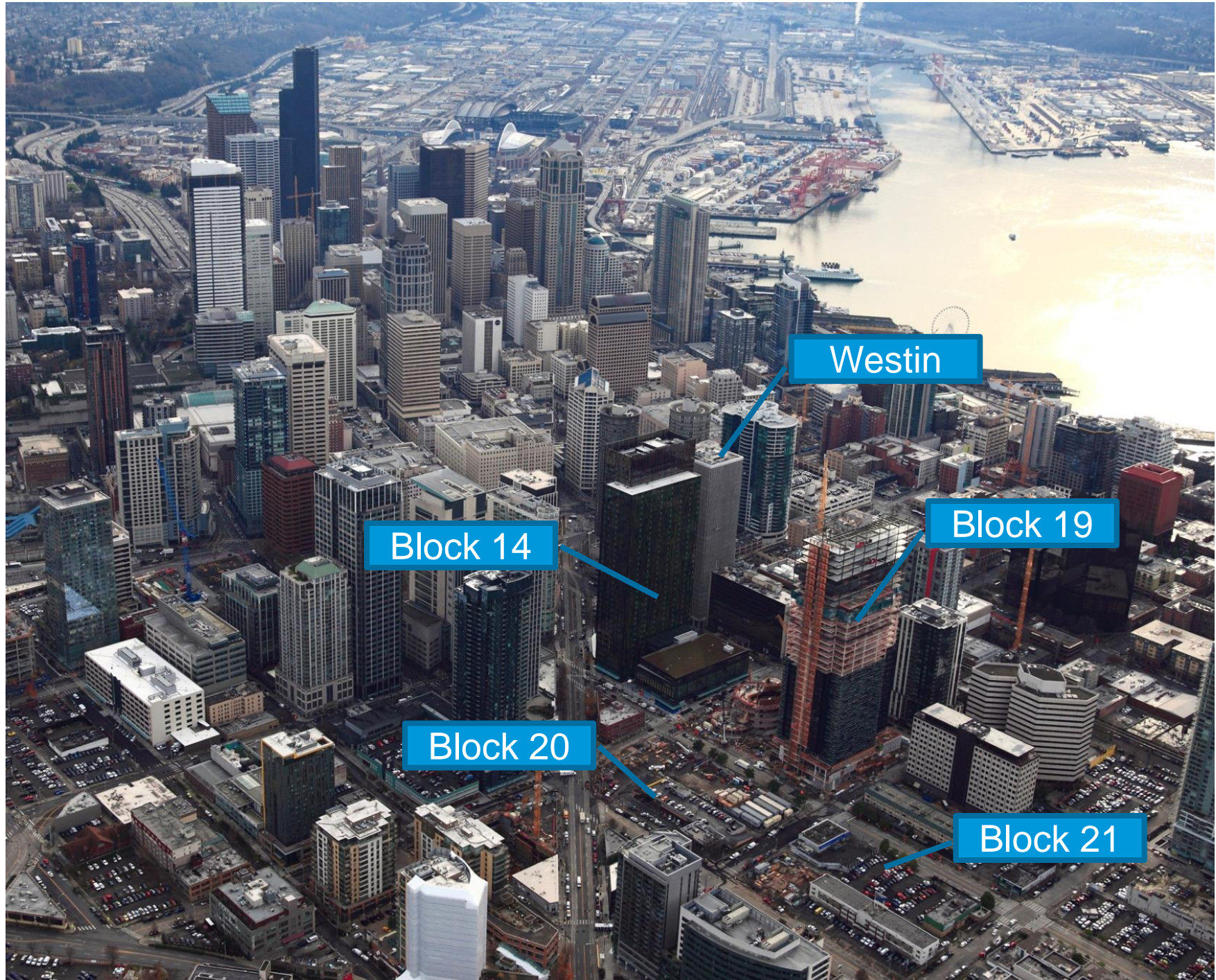


# THE CONCEPT





# CURRENT PLAN





# WESTIN WASTE HEAT SOURCE CONNECTION



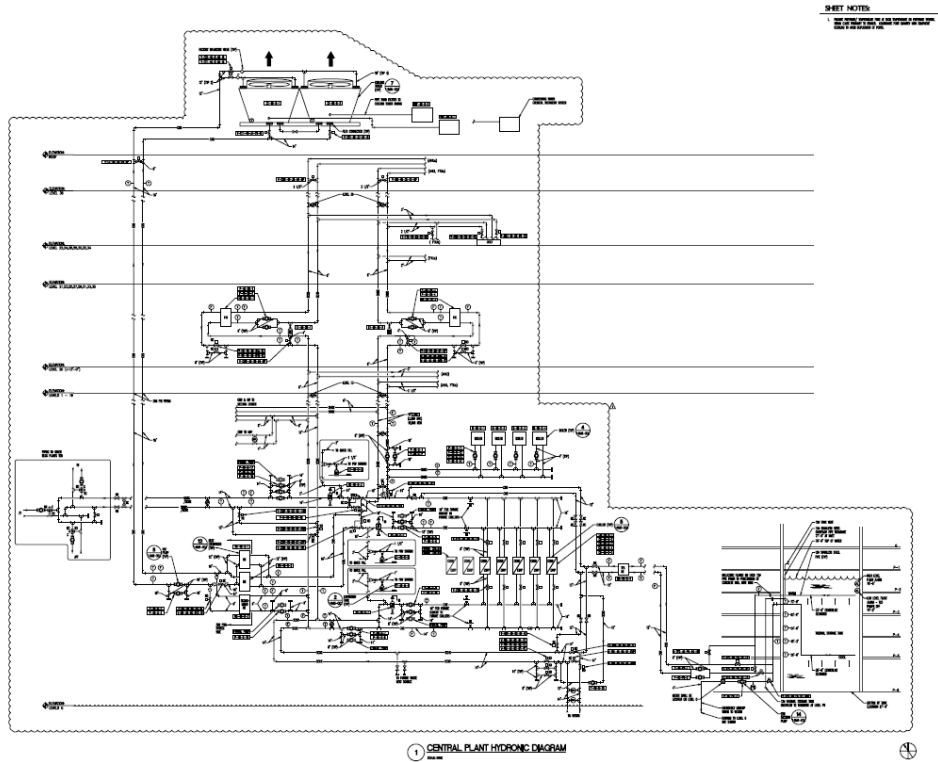


# INTERCONNECTING





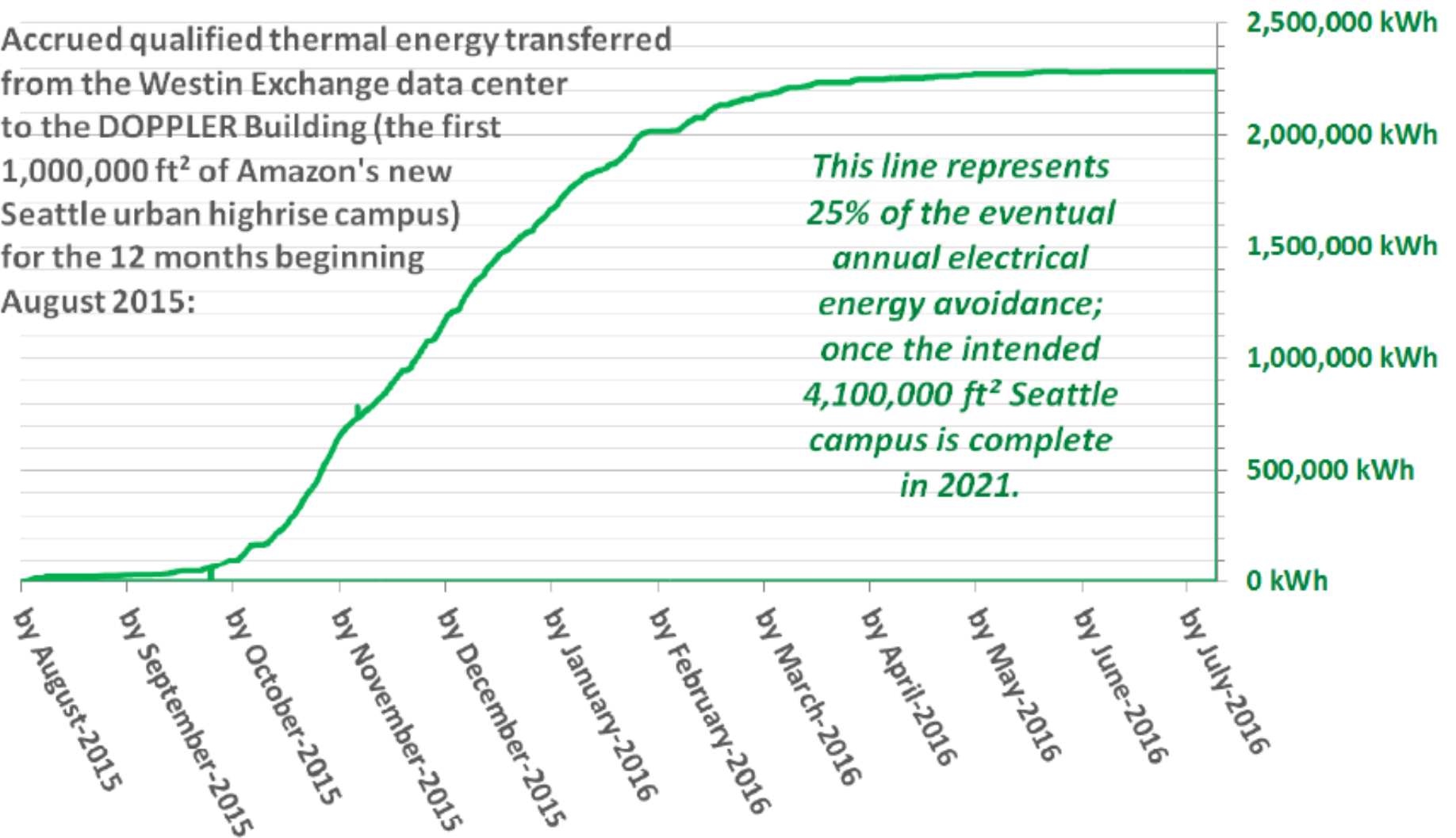
# AMAZON BLOCK 14 CENTRAL PLANT





# RESULTS

Accrued qualified thermal energy transferred from the Westin Exchange data center to the DOPPLER Building (the first 1,000,000 ft<sup>2</sup> of Amazon's new Seattle urban highrise campus) for the 12 months beginning August 2015:





# NOTE: WE ARE JUST THE ENGINEERS!

The Full Cast of Characters Includes:

Acorn Development (Amazon)

Westin Building (Clise Properties)

Eco District LLC (McKinstry)

WSP | Parsons Brinckerhoff

NBBJ Architects

Coghlan Porter Lundeen

University Mechanical

ATS Controls

Seattle Department of Construction and Inspections

Seattle Office of Sustainability

The Seneca Group