Technical Tour A
UBC NDES at Wesbrook Village
District Energy Systems at UBC

- UBC Academic DES at UBC North Campus
- CEC: Campus Energy Centre
- BRDF: Biomass Research Demonstration Facility
- Corix NDES at UBC Wesbrook Village
- Potential 10MW Waste Heat Recovery
• Neighbourhood District Energy System (NDES):
  – Services the growing greenfield community of Wesbrook Village
  – Will connect with other energy sources
  – Potential to connect to UBC’s Academic DES
  – South of UBC campus

• NDES at full build-out
  – 25 buildings + expansion opportunities
  – 8 km (5 miles) underground piping
  – 30 MW peaking plants (3000 BHP)
  – 10 MW (34 million BTU/h) waste heat recovery
Temporary Energy Centres

- Temporary Energy Centres (TECs)
  - Mobile natural gas boiler plant
  - Unmanned / Remote monitored
  - Boilers sized for current demand (small to start)
  - Ideal at start of green field or satellite development
  - Portable & quick install (generators & propane tanks)
  - Upsize or connect multiple TECs
• TEC-West installed 2015 (serviced 1 building)
• 6.5 MW (650 BHP)
  – 1 x 500 kW (50 BHP) condensing boiler
  – 2 x 3 MW (300 BHP) non-condensing boilers
• 6” supply line to a 8” distribution main
• Currently services 6 medium rise buildings
TEC-East at UBC NDES East Loop

- TEC-East installed 2016 (serviced 1 high-rise)
- 8 MW (800 BHP)
  - 2 x 4 MW (400 BHP) non-condensing boilers
- 8” distribution main
- Currently services 2 tower/townhouse developments
Pre-Packaged Energy Transfer Stations

- Reduce construction and management costs
- Reduces engineering costs
- Defer capital investment
- Reduce time on site
- Load-bearing frame
- Consistent product