

February 28th, 2017

Full Capacity Combined Space and Water Heating

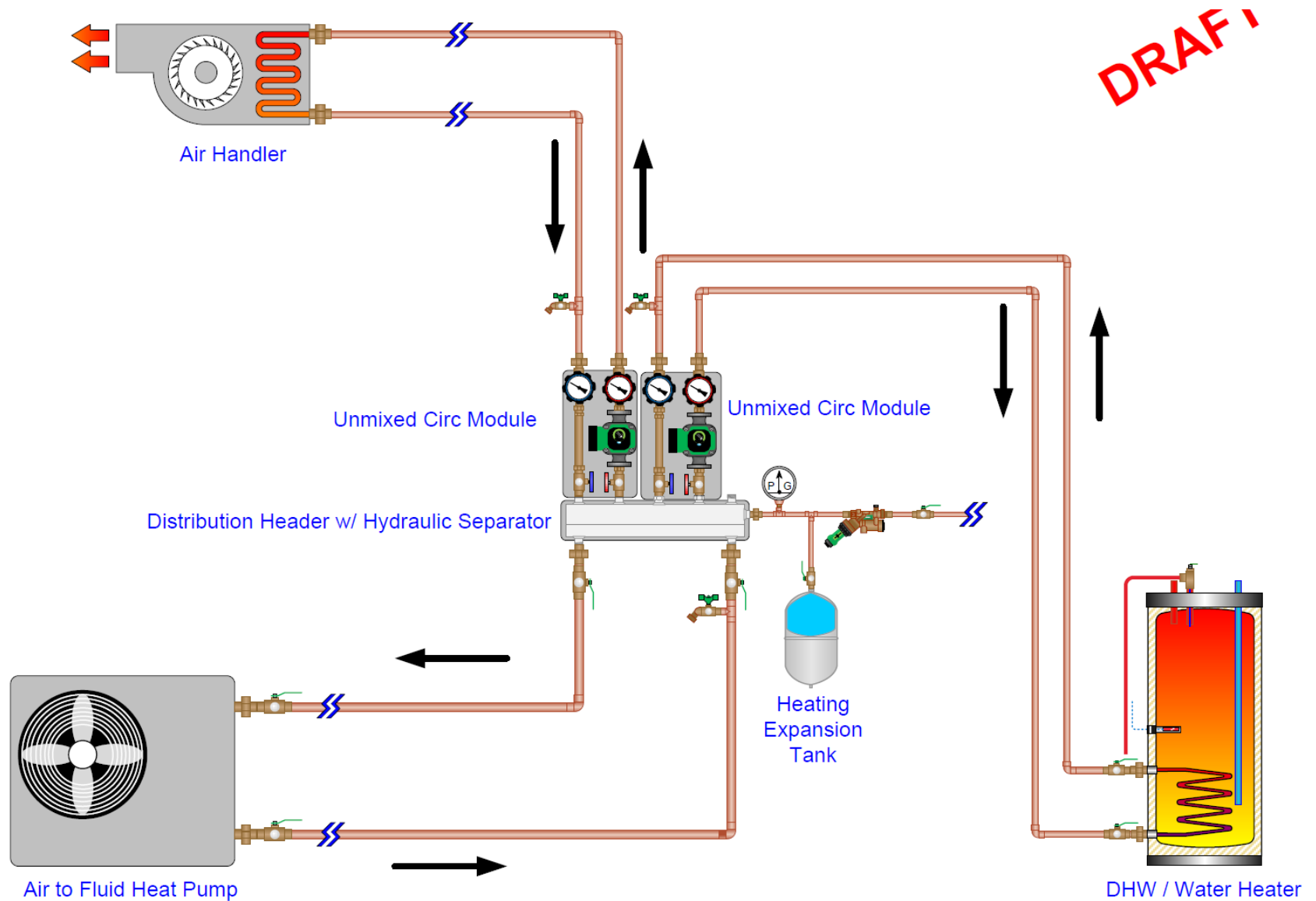
ACEEE Hot Water Forum 2017
Charlie Stephens



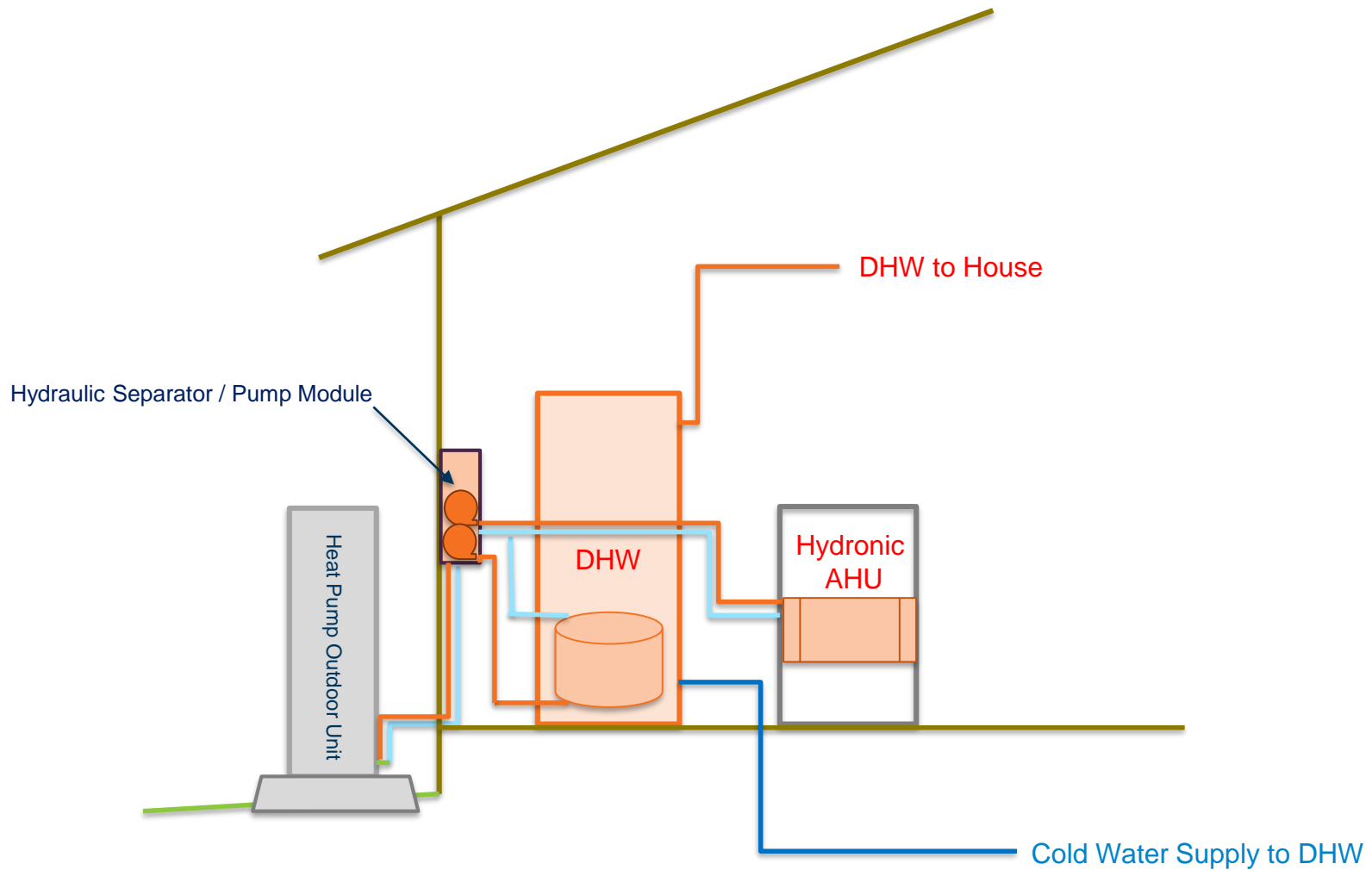
Lots of Homes to Retrofit

- Hydronic floor heat
 - Increasingly popular
- Hydronic baseboard
 - Little used in the PNW, but widespread in NE
- Hydronic fan/coil
 - Good flexibility for zoning
- Forced air
 - More than 400,000 electric forced air furnace single-family homes in the PNW; about 300,000 more manufactured homes; heating/water heating savings should be around 70%

System Schematic



Combined System Configuration



Sanden Eco Runo-based System



Controls





Thank you.

TOGETHER We Are Transforming the Northwest

