

Ground Source Heat Pump Association Webinar Series 2020

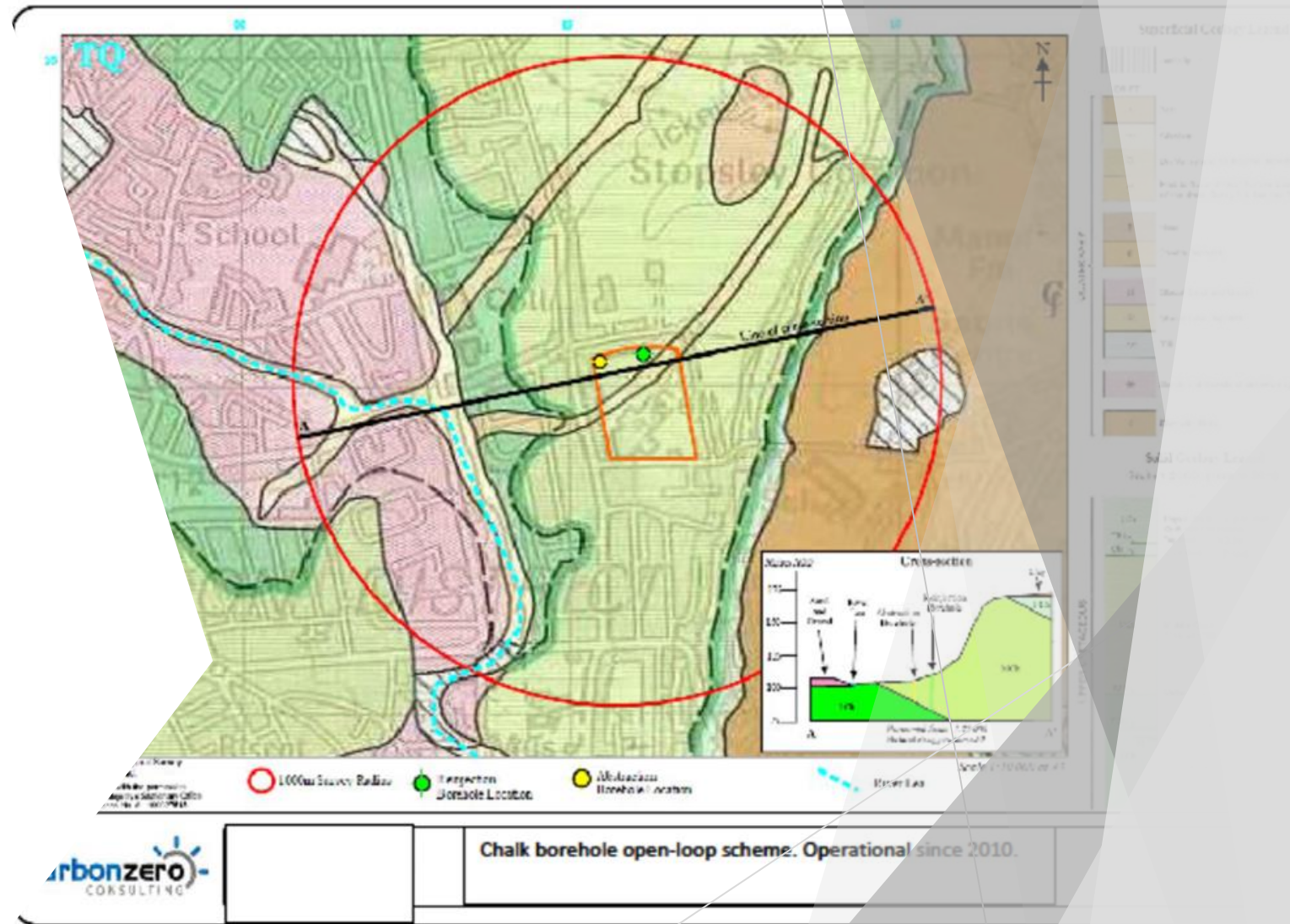
Open Loop Ground Source Systems

#5 – Above & Beyond the Ground

17th December 2020

Open Loop Ground Source Systems #5 - Above & Beyond

1. Setting the Scene
2. Groundwater Modelling
3. Come All You Gallant Colliers
Mine Energy Renaissance?
4. Borehole for Water Source Heat
Pumps
5. Listen On!

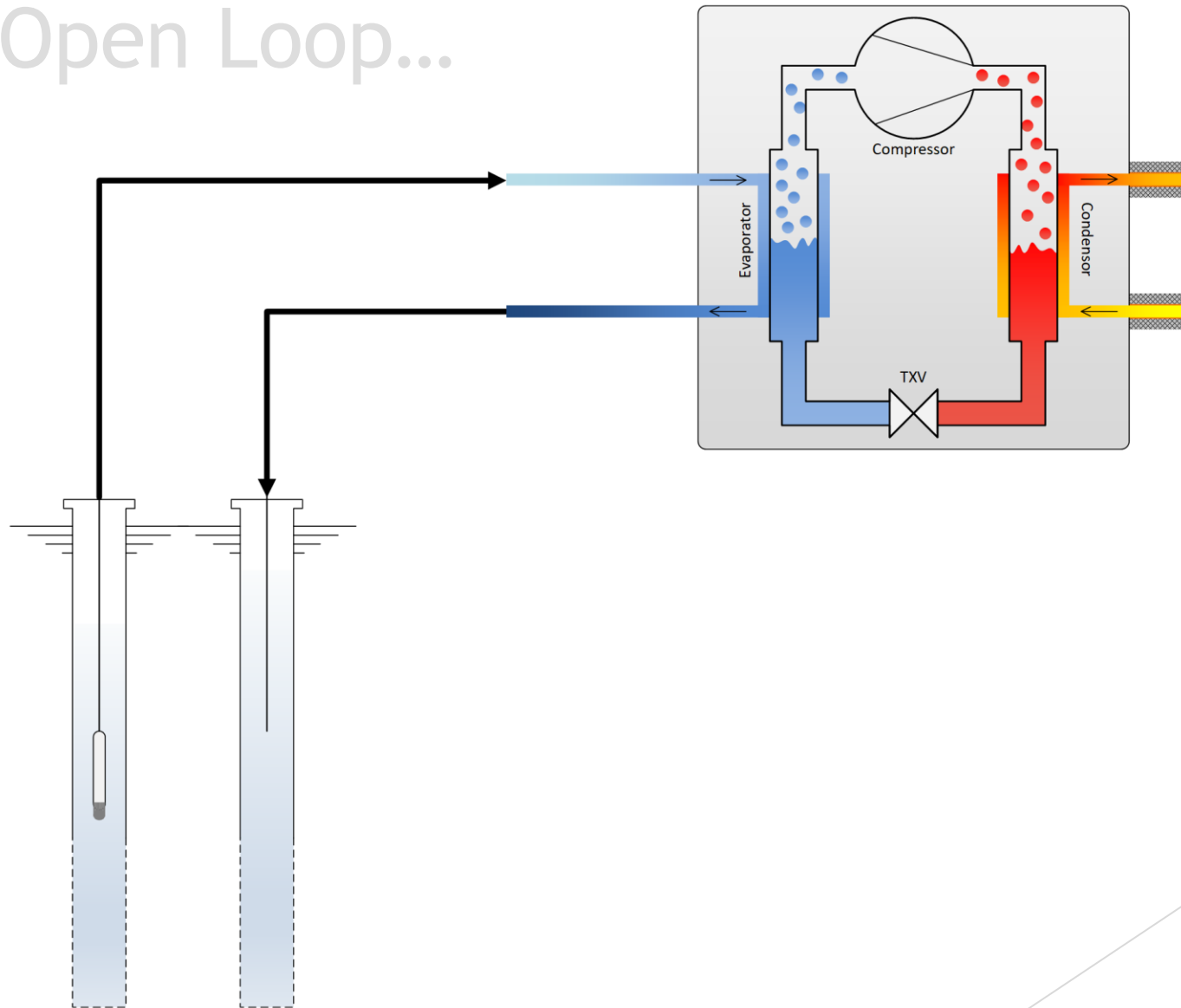


A word on Water Quality....

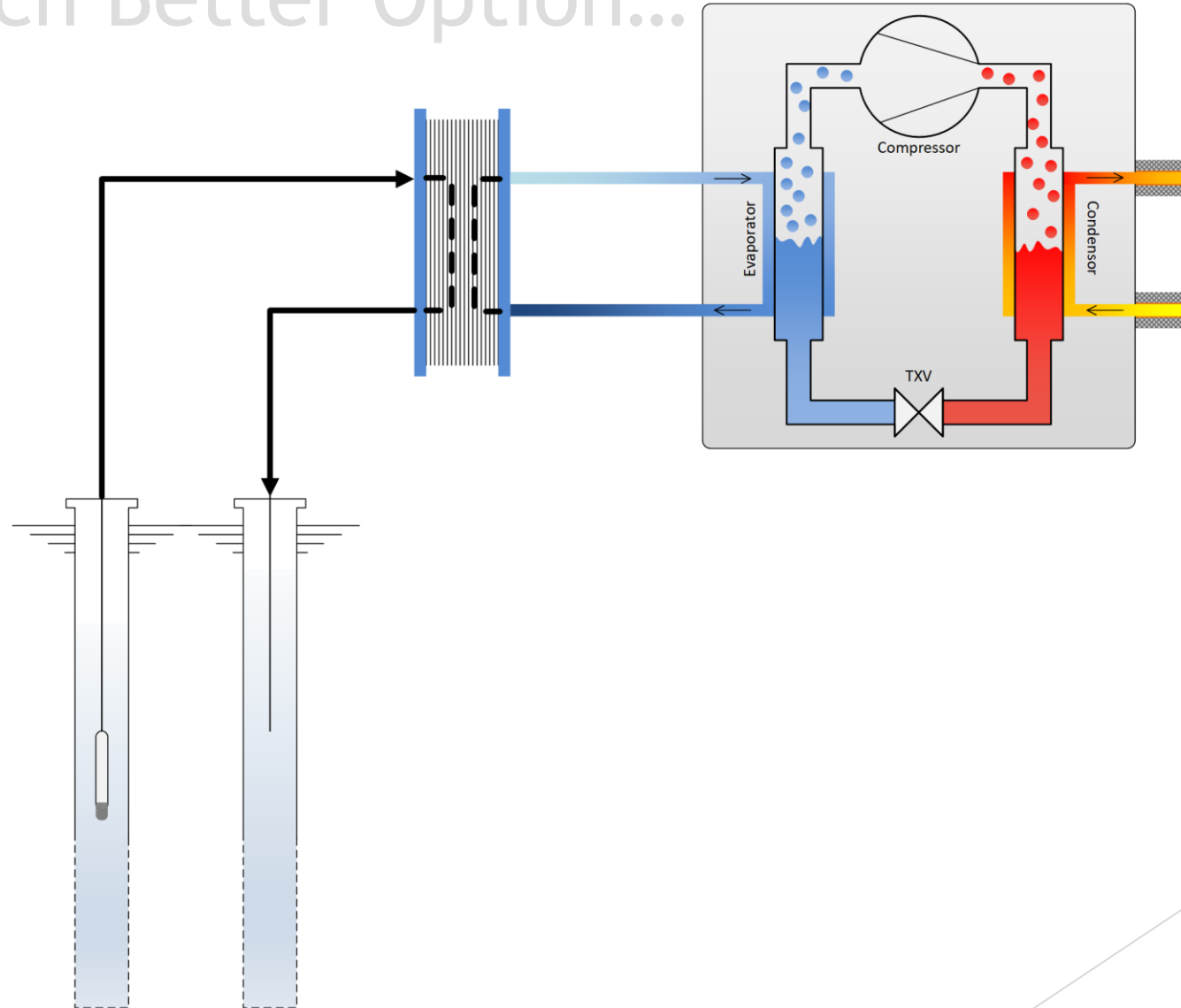
- ▶ **Particulates**
 - ▶ Well Development
 - ▶ Filtration is the last resort!
- ▶ **Minerals**
 - ▶ Up front assessment
 - ▶ Analysis
 - ▶ Specification of components
 - ▶ Regular maintenance
 - ▶ Can be a serious problem
- ▶ **Bacteria**
 - ▶ Analysis
 - ▶ Treatment Schedules



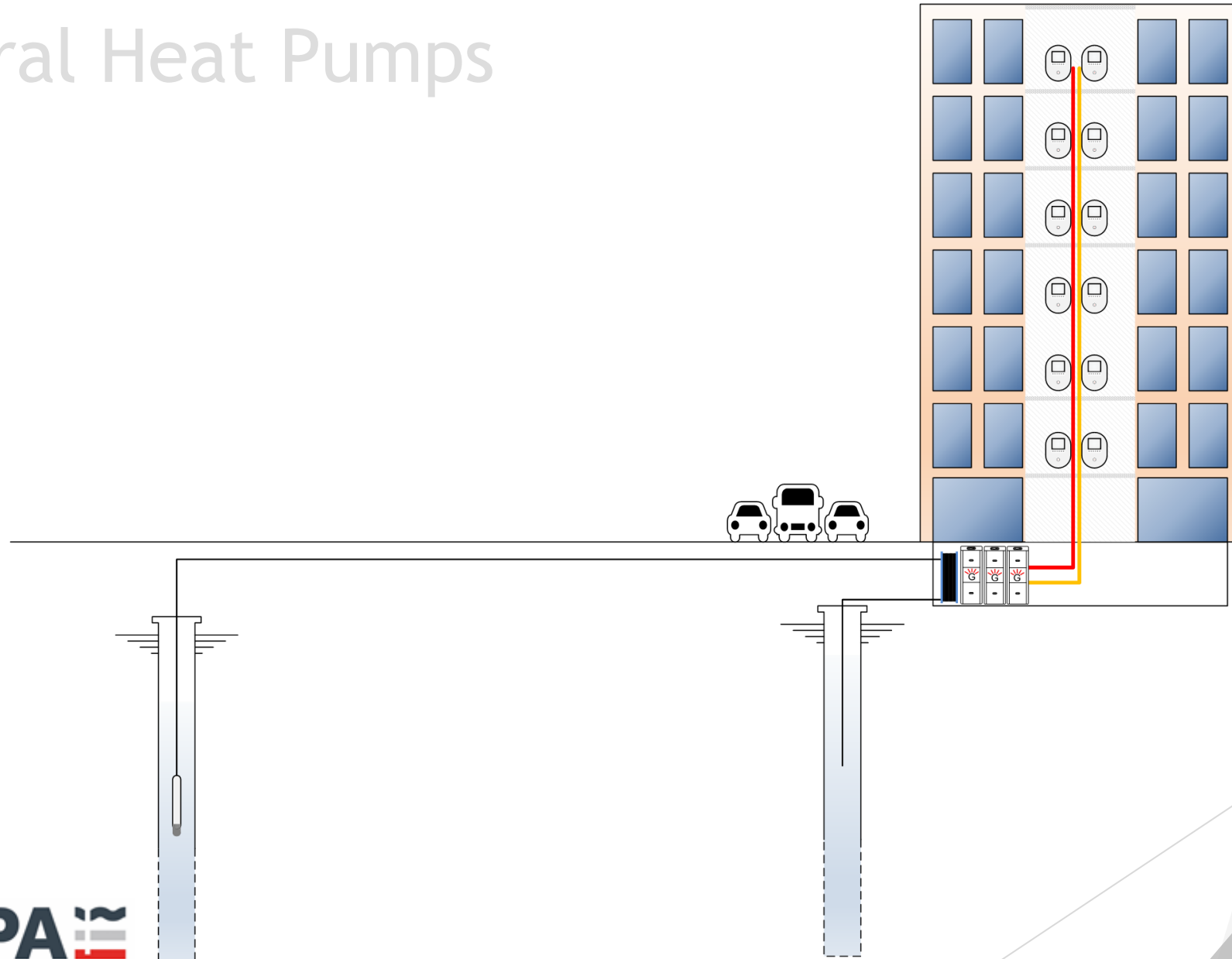
Simplest Open Loop...



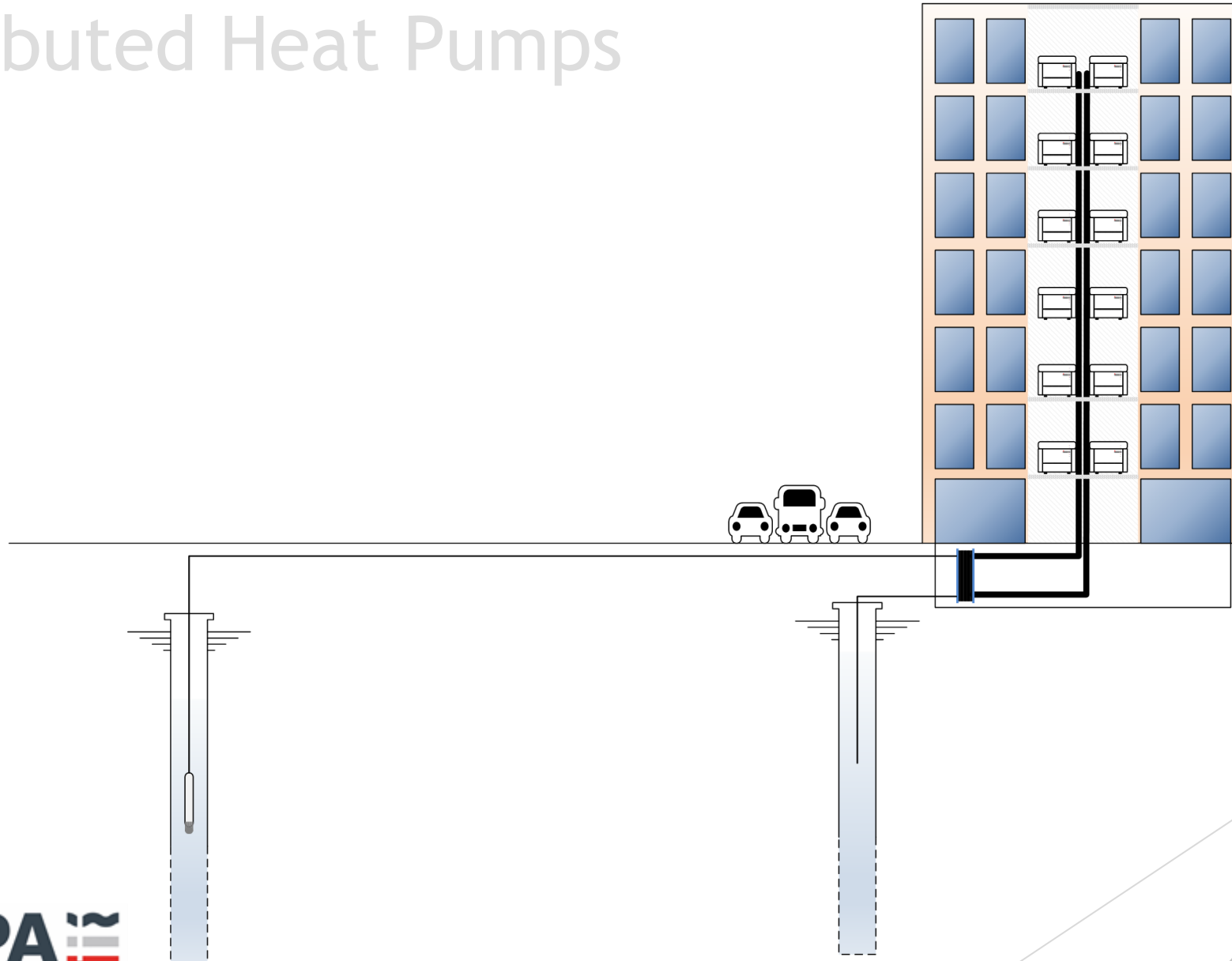
But a Much Better Option...



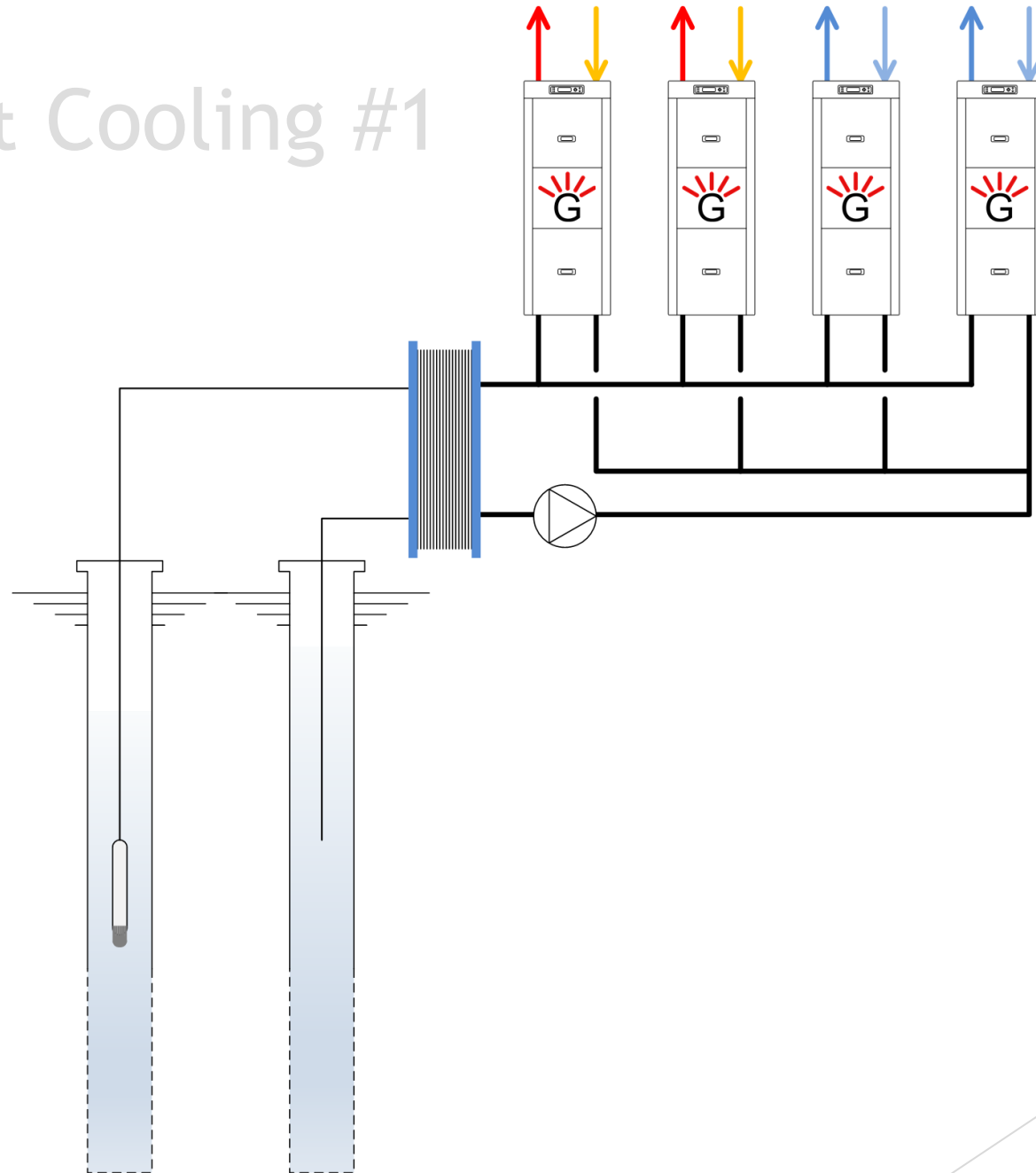
Central Heat Pumps



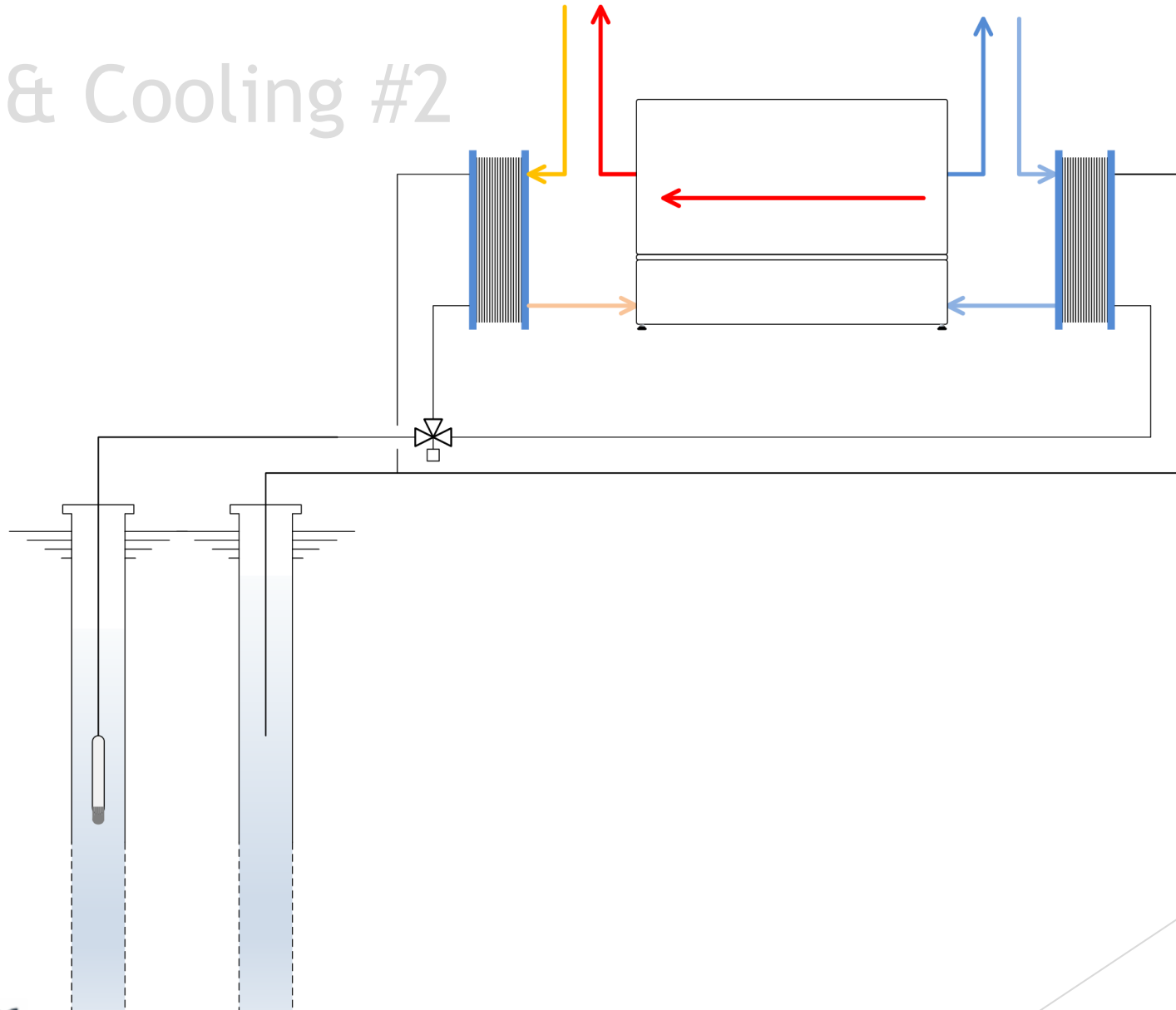
Distributed Heat Pumps



Heating & Cooling #1



Heating & Cooling #2



So in summary?

- ▶ Engage a specialist!
- ▶ Establish viability early
- ▶ Commence the licencing process via an EA Pre-Application
- ▶ Remember that modelling can be simple or complex
- ▶ Consider water quality
- ▶ Keep it simple!
- ▶ Remember the EA process, post-drilling, can take up to 9 months
- ▶ ...and did I say Engage a specialist?



Questions.....

and thank you
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