



Decarbonizing the Gas Grid

Trip Follow-Up Meeting
July 7, 2022

We Saw and Heard...

High Level Strategy

- State of Green, Danish Energy Administration

District Energy / Waste to Energy

- Copenhill

Biofuel Production

- Agro Business Park, Billund Biorefinery, Nature Energy

Power to X and the Hydrogen Future

- Ørsted, Maersk, Hydrogen Valley

Gas Utility Perspective

- Energinet, Evida

Initial Impressions From Denmark Trip #1

- Denmark has created a roadmap for developing a low carbon energy infrastructure, and the technology to get there largely exists today
- An “all of the above” strategy relying on systems to deliver both electricity and “molecules” is critical for energy reliability
- Denmark’s vision for PtX is clear, concise, and compelling, and is being delivered consistently by many different parties

Initial Impressions From Denmark Trip #2

- The government, industry, and everyday society are “all-in” to a collective vision
- Many different industries are involved – this isn’t just about energy
- Denmark’s zero carbon vision integrates the needs and resources of both urban and rural communities

Initial Impressions From Denmark Trip #3

- PNW gas utilities recognize that they have to change, and will have to do some things that make them uncomfortable. They are asking that others – politicians, regulators, and stakeholders – work with them, hold them accountable, and support them.
- Just as Denmark is having an impact far beyond its borders, if utilities in the PNW can demonstrate solutions to other progressive utilities, our impact can be far greater.

Initial Impressions From Denmark Trip #4

- The PNW is entering a new, transformational stage:
 - We are moving from policies that focus on wind and solar to economy-wide programs
 - With the cap and trade taking effect on January 1, the emphasis will be shifting away from high level goal setting policies to support for programs that get projects done!
- We need to continue the educational process and communicate to a broader audience