

Canada's Pathway to Low Carbon

Canada's low-carbon future is practical and buildable



Michael Barnard

TFIE Strategy, Trace Intercept, Redefining Energy, CleanTechnica

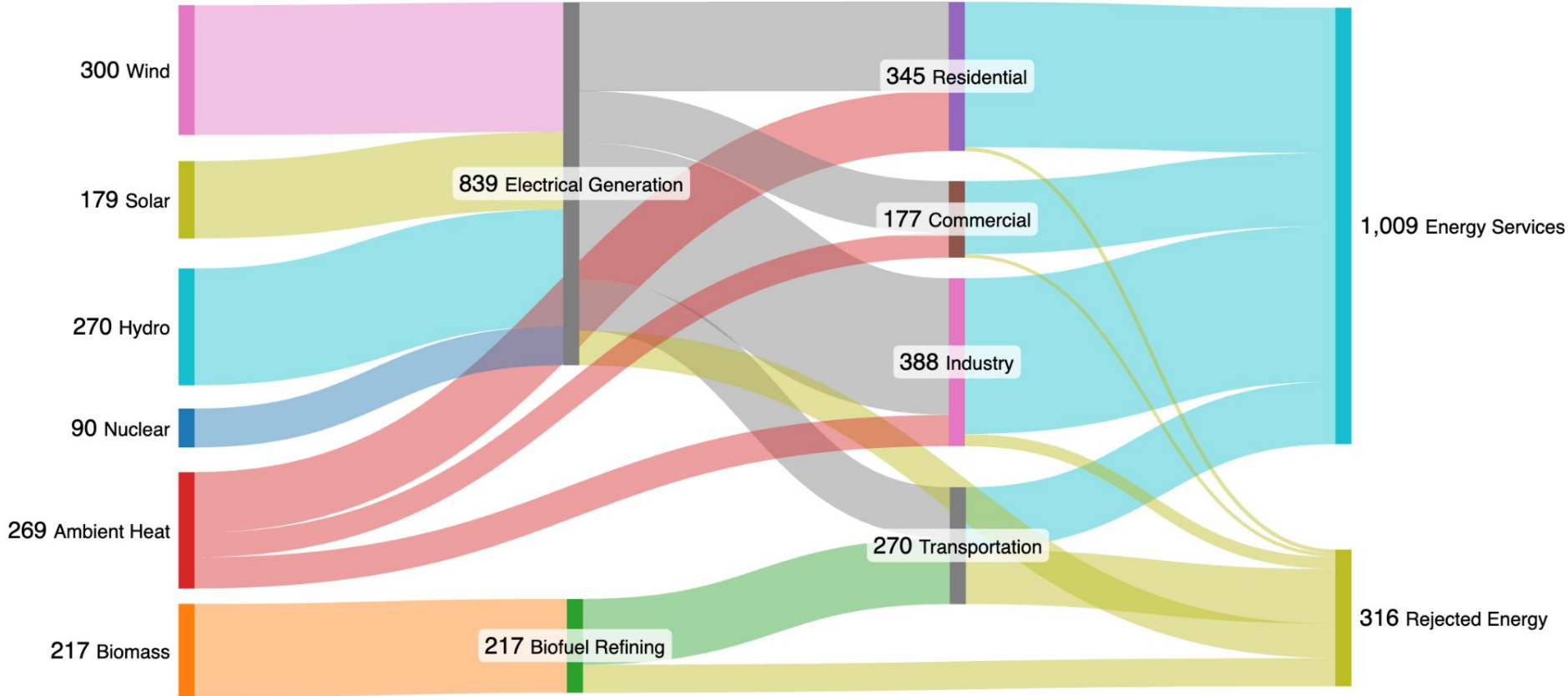


The future is already here.
The question is whether
Canada scales it.



Canada has a head start

Canada's decarbonized energy flows in TWh



A decarbonized Canada is a simpler, cleaner, efficient energy system



A better connected Canada is a stronger Canada.



Flexibility is how clean grids stay reliable and affordable



Capitalize on our leadership in mass timber



Replace furnaces with heat pumps



Move people and goods with electricity



Cut fossil methane for fast climate action



Fix agricultural methane and NOx



CRITICAL MINERALS PROCESSING

**NICKEL
CONCENTRATE**

**LITHIUM
CARBONATE**

**COPPER
CONCENTRATE**



Capitalize on our critical minerals



Canada's low-carbon future requires no sacrifices



CARE



FAIRNESS



LOYALTY



AUTHORITY



SANCTITY



LIBERTY

Make sure messaging crosses moral foundations

Michael Barnard
michael@tfie.io

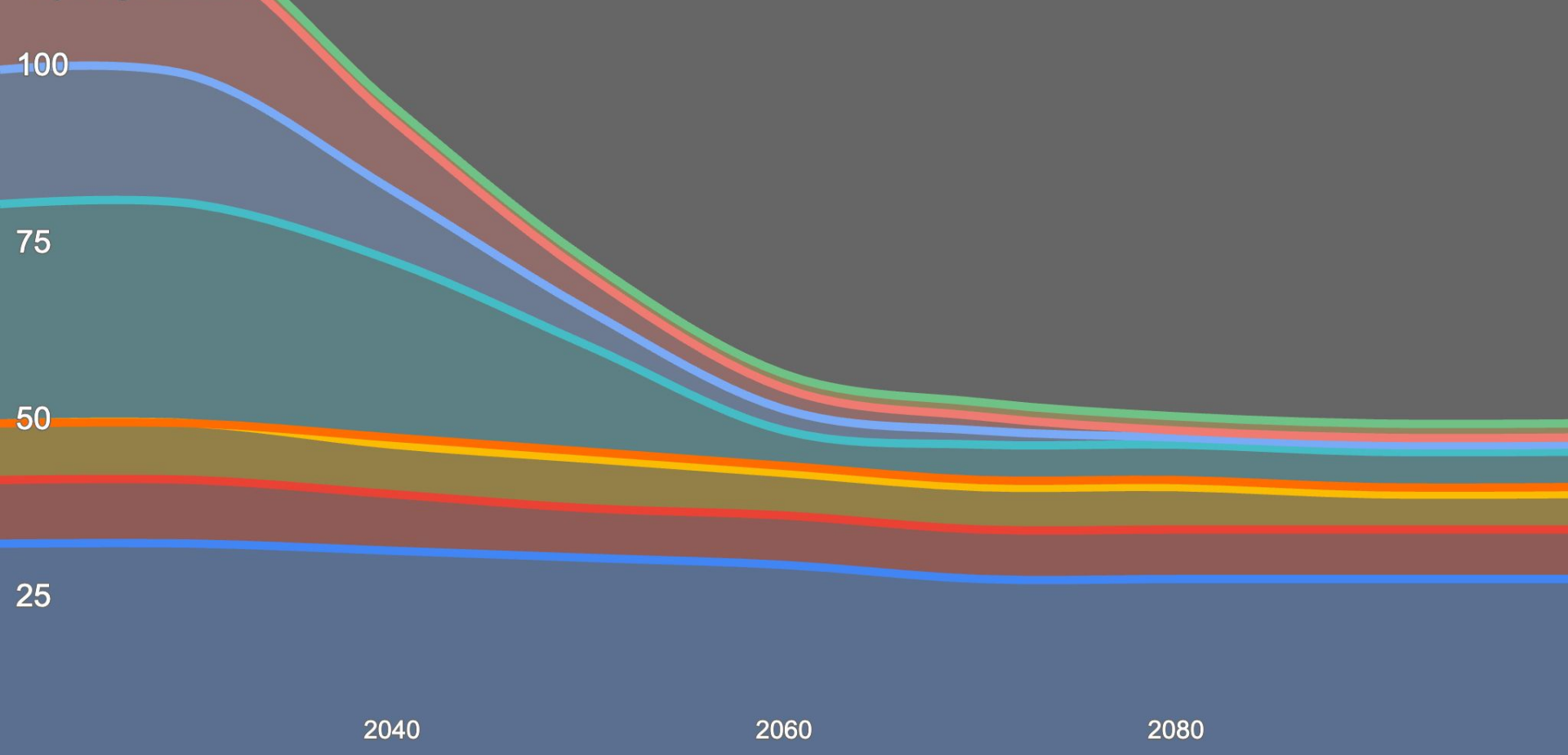


*Let's
talk*

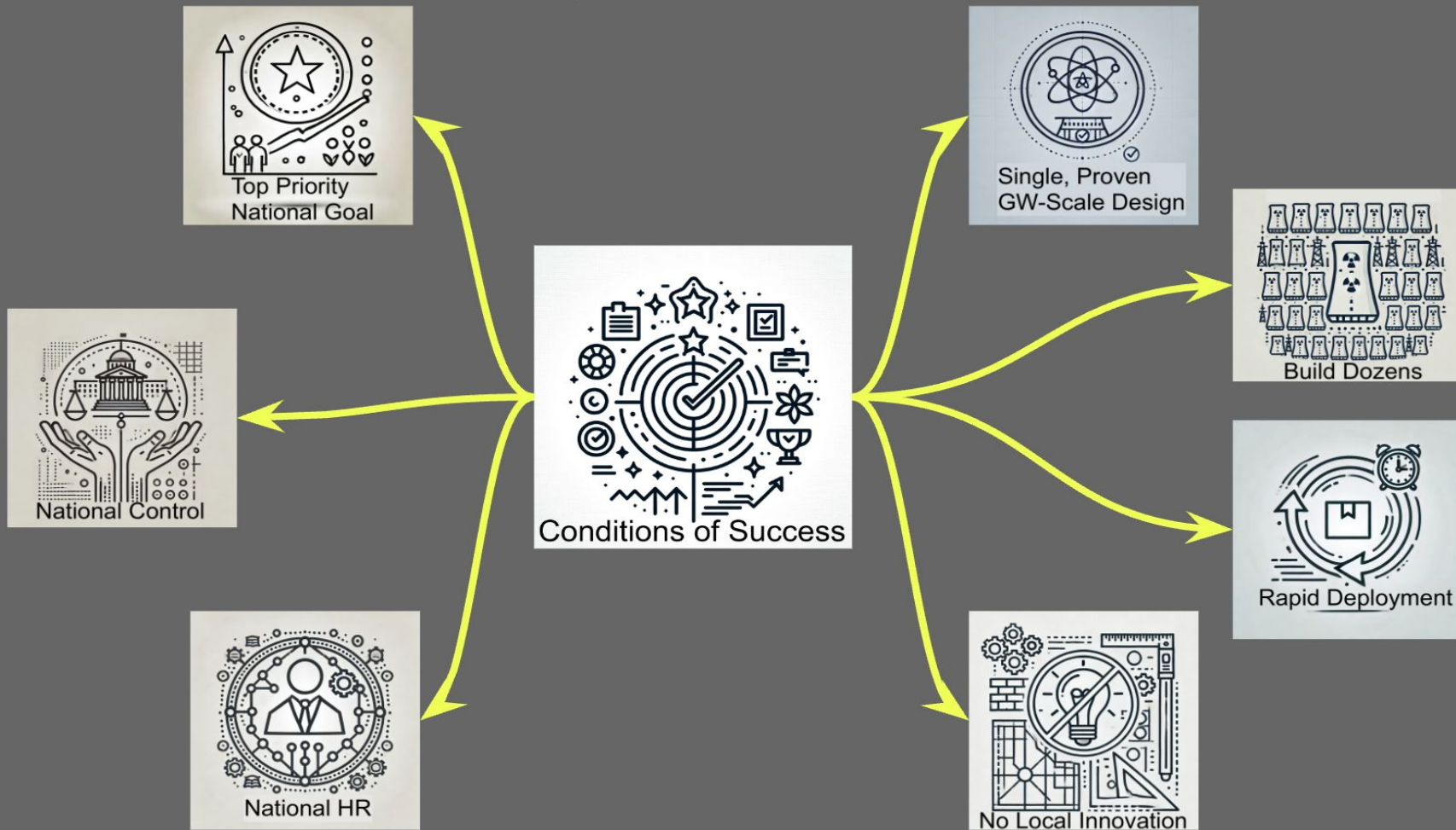
Hydrogen Demand Projection

Hydrogen demand sources / Millions of tons

- Steel
- Transportation
- Desulphurization
- Hydrocracking
- Fertiliser
- Heating
- Long-term storage
- Hydrogenation
- Methanol
- Mixed Other



Successful, scaled nuclear programs shared these conditions for success



CCS Value Filter



Power



Oil Refinery



Biorefinery



Waste Incinerator



Cement



Steel Plant



CO₂ Stream Purity



Storage Geography



Carbon Economics



Ethanol



Ammonia



Cement

Industrial processes that emit purer CO₂ streams of especially biogenic CO₂ that are on top of sequestration sites or pipeline heads can compete