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2021

# Canadian Energy Outlook

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## HORIZON 2060

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HEC MONTRÉAL

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Modélisation

Soutien financier

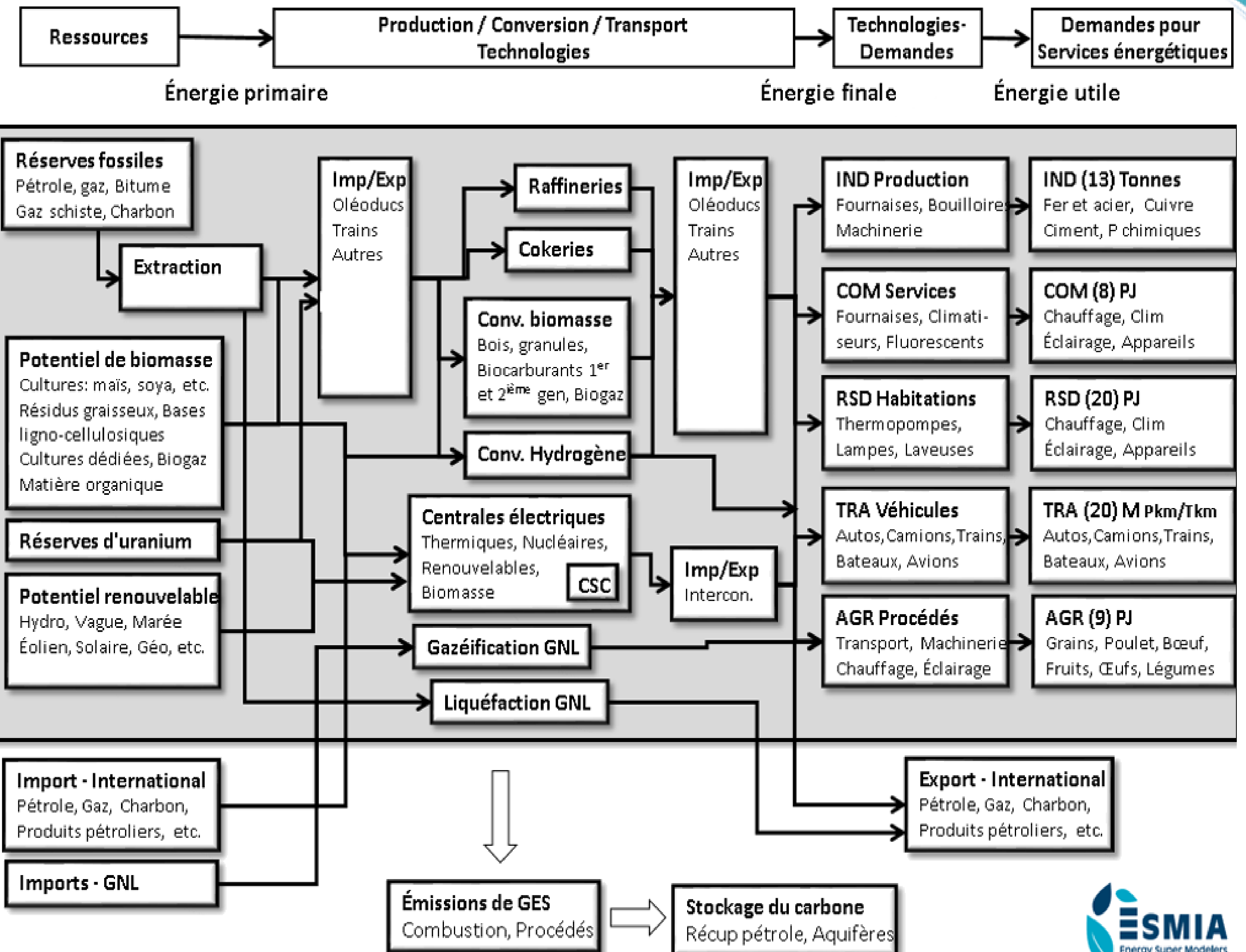
**ESMIA**  
Energy Super Modelers  
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# NATEM — A TIMES family model

## Strengths

- System representation
- Technology explicit: capital stock turnover, effect of techno regulation
- Capital, operating and fuel cost allowing least cost analysis
- Results at the provincial level

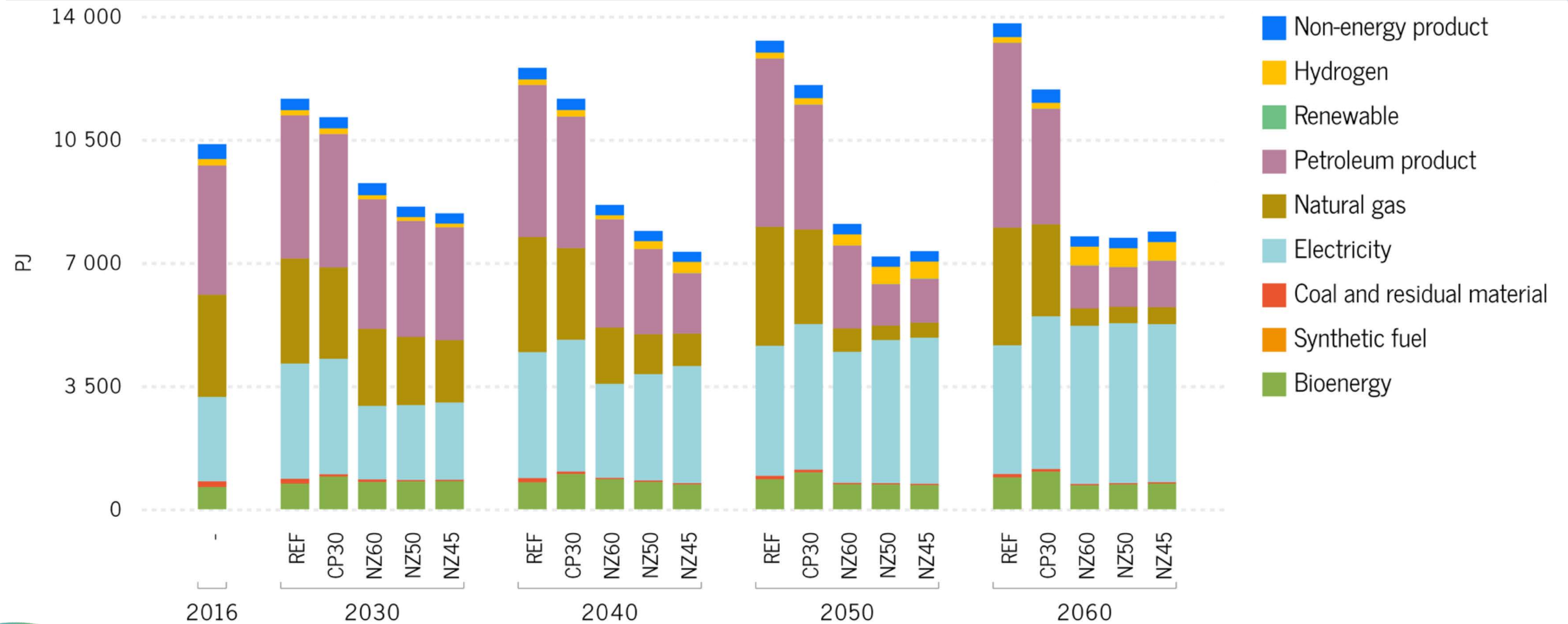


# The scenarios

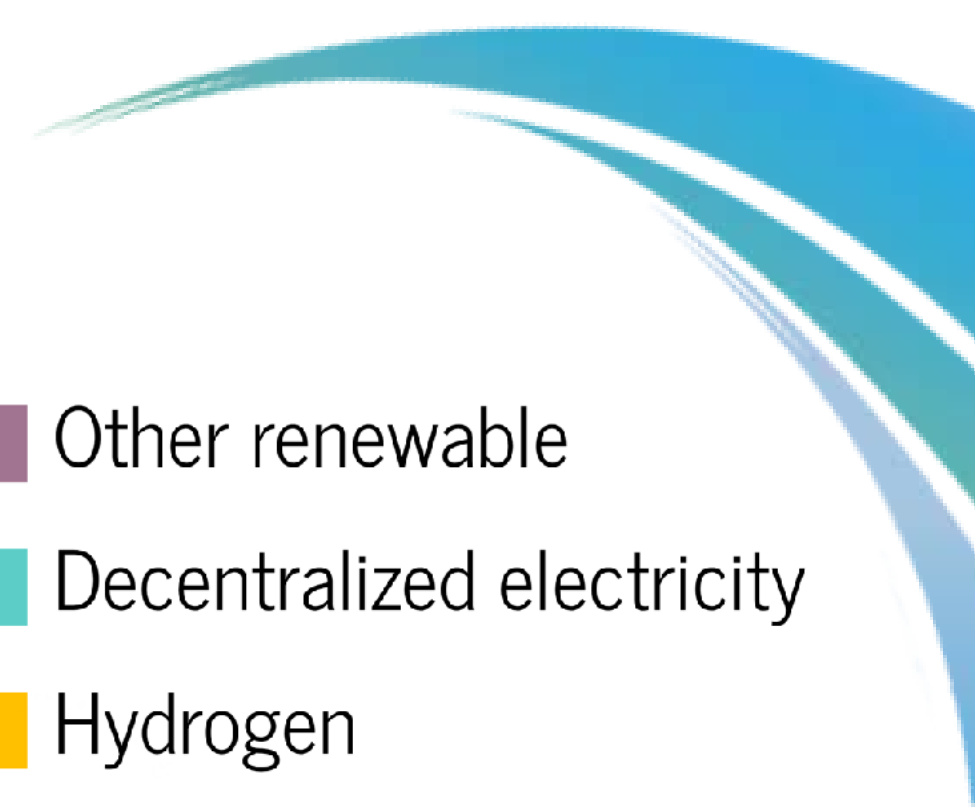
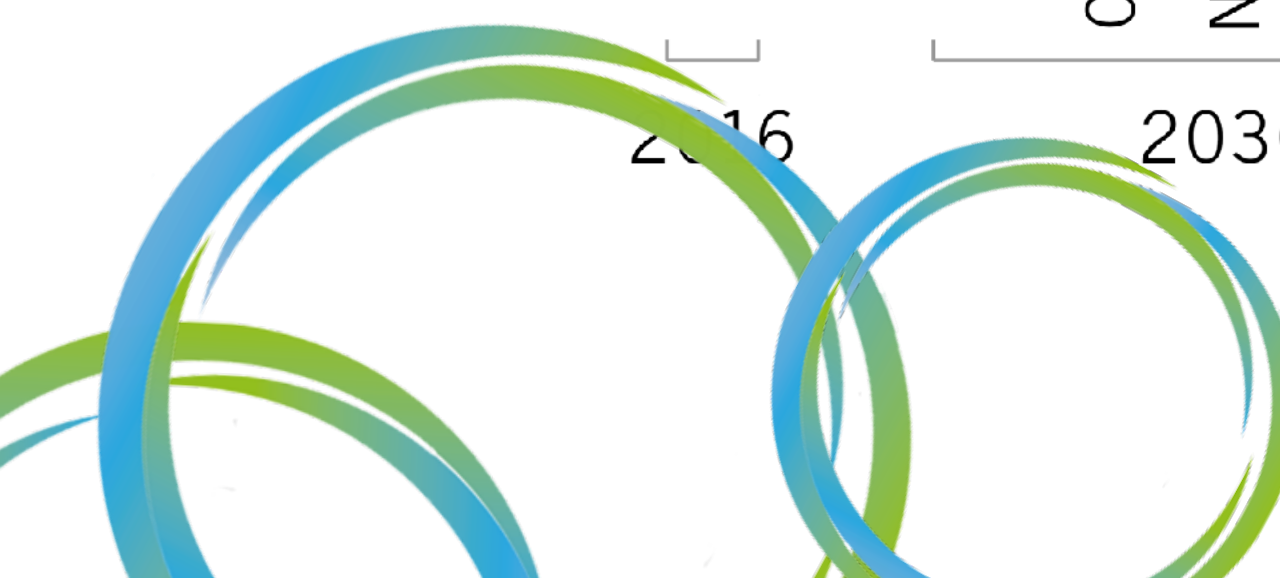
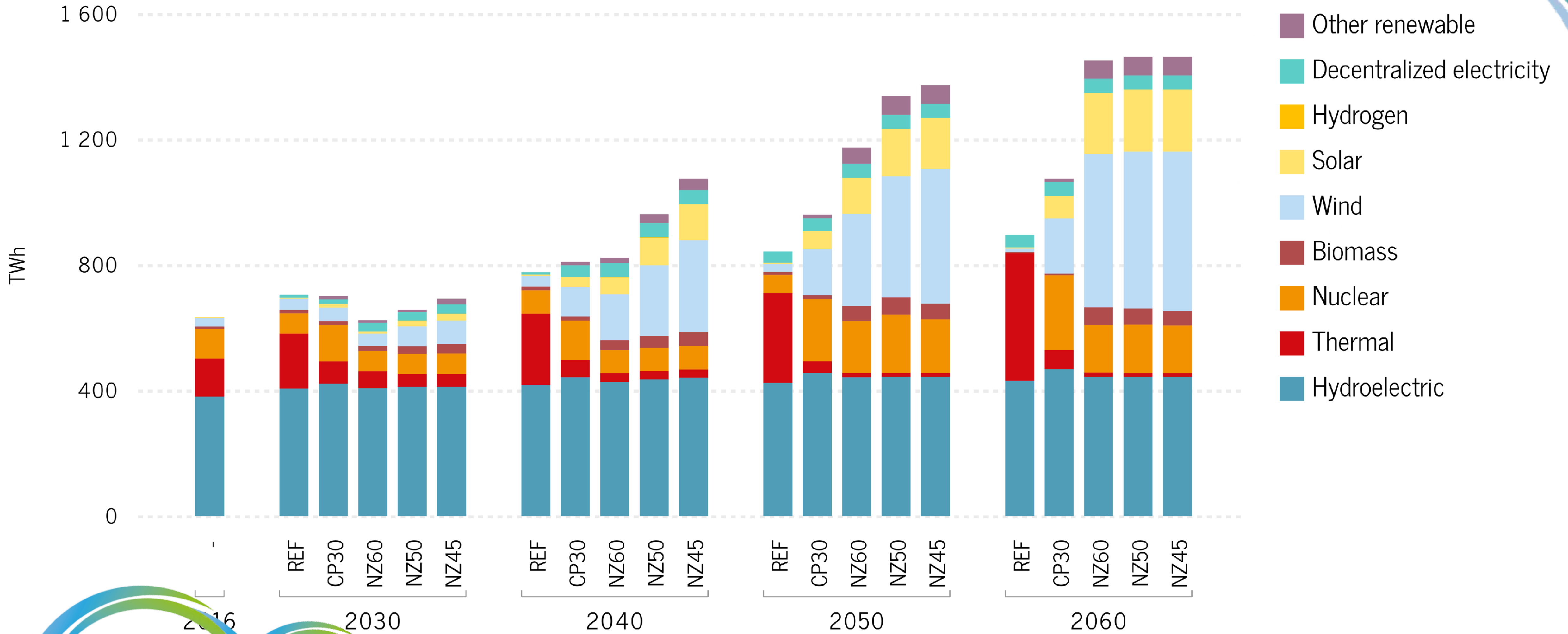
<b>REF</b>	<ul style="list-style-type: none"><li>• no constraining GHG reduction targets.</li><li>• aligned with the Reference scenario used in the Canada Energy Regulator's Energy Future 2020 report</li><li>• Includes <b>GHG policies already in place</b> at federal and provincial levels</li></ul>
<b>CP30</b>	<ul style="list-style-type: none"><li>• REF + carbon pricing increase schedule announced by the federal government in late 2020, with a price reaching <b>\$170/tonne of CO<sub>2</sub>e in 2030</b> (\$131 in 2016 \$).</li><li>• To accelerate the impact of carbon pricing, it also <b>lowers the hurdle rate</b> with respect to standard practice.</li></ul>
<b>NZ60</b>	<ul style="list-style-type: none"><li>• Imposes a <b>net-zero</b> emissions target on total CO<sub>2</sub>e by <b>2060</b>.</li><li>• Aligned with CER'S Evolution Scenario (as all NZ scenarios)</li><li>• a 30% reduction target by 2030 (base = 2005).</li></ul>
<b>NZ50</b>	<ul style="list-style-type: none"><li>• Imposes a <b>net-zero</b> emissions target on total CO<sub>2</sub>e by <b>2050</b>, and</li><li>• a 40% reduction target by 2030 (base = 2005). This corresponds most closely to the current government's targets.</li></ul>
<b>NZ45</b>	<ul style="list-style-type: none"><li>• Imposes a <b>net-zero</b> emissions target on total CO<sub>2</sub>e by <b>2045</b> ; 45 % by 2030</li></ul>



# The transformation of the energy consumption

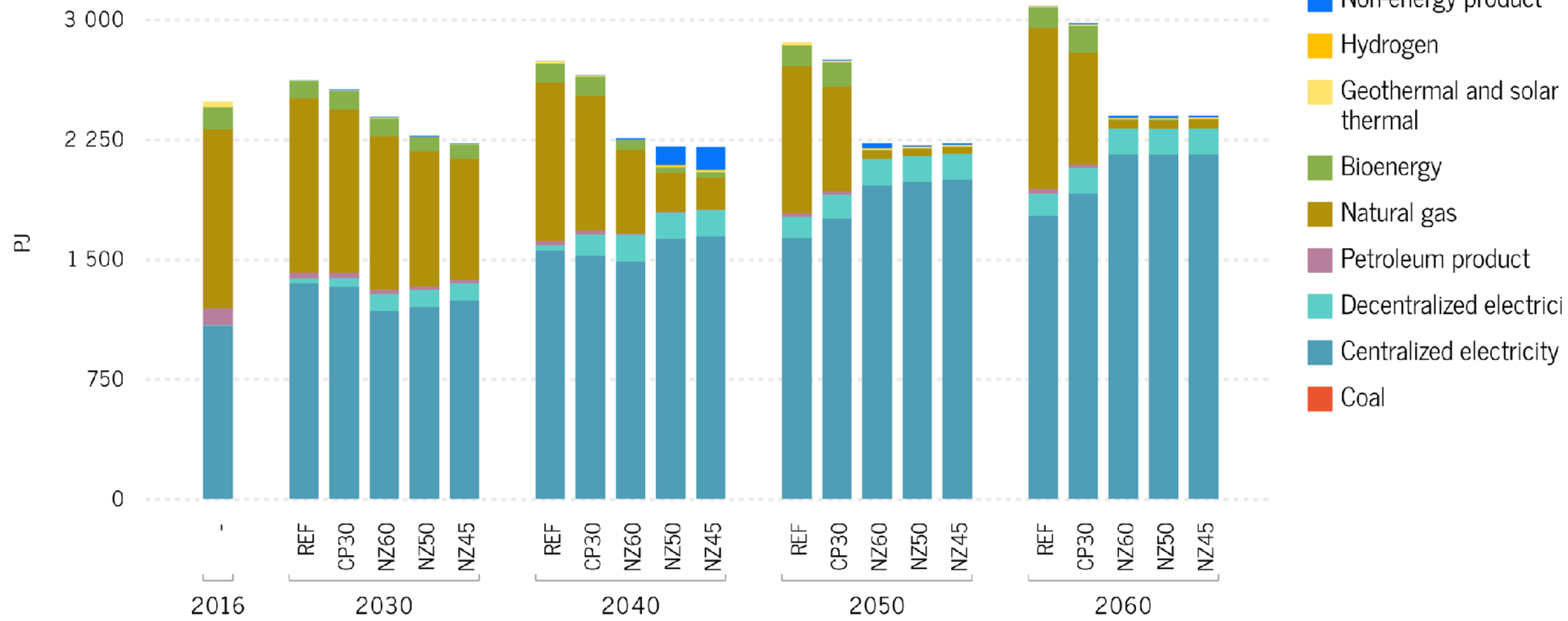


# Electricity Production

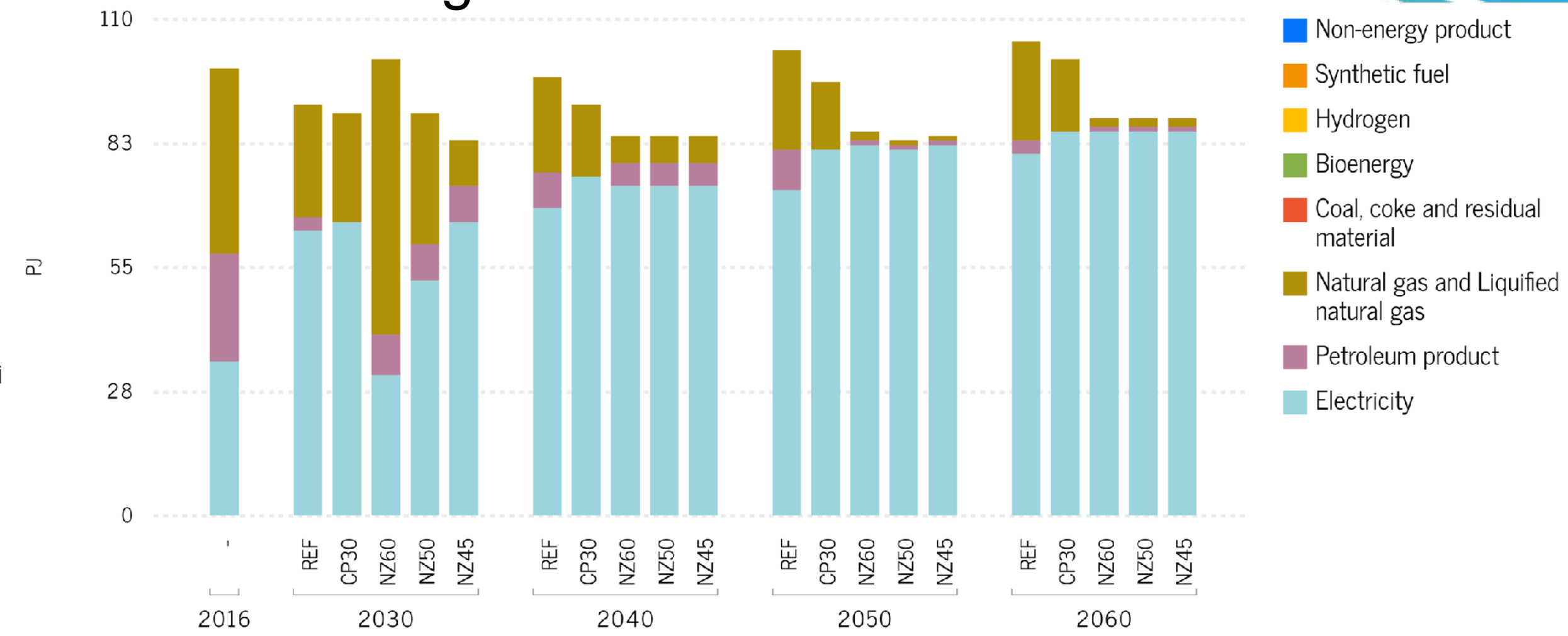


# Sectorial transformation

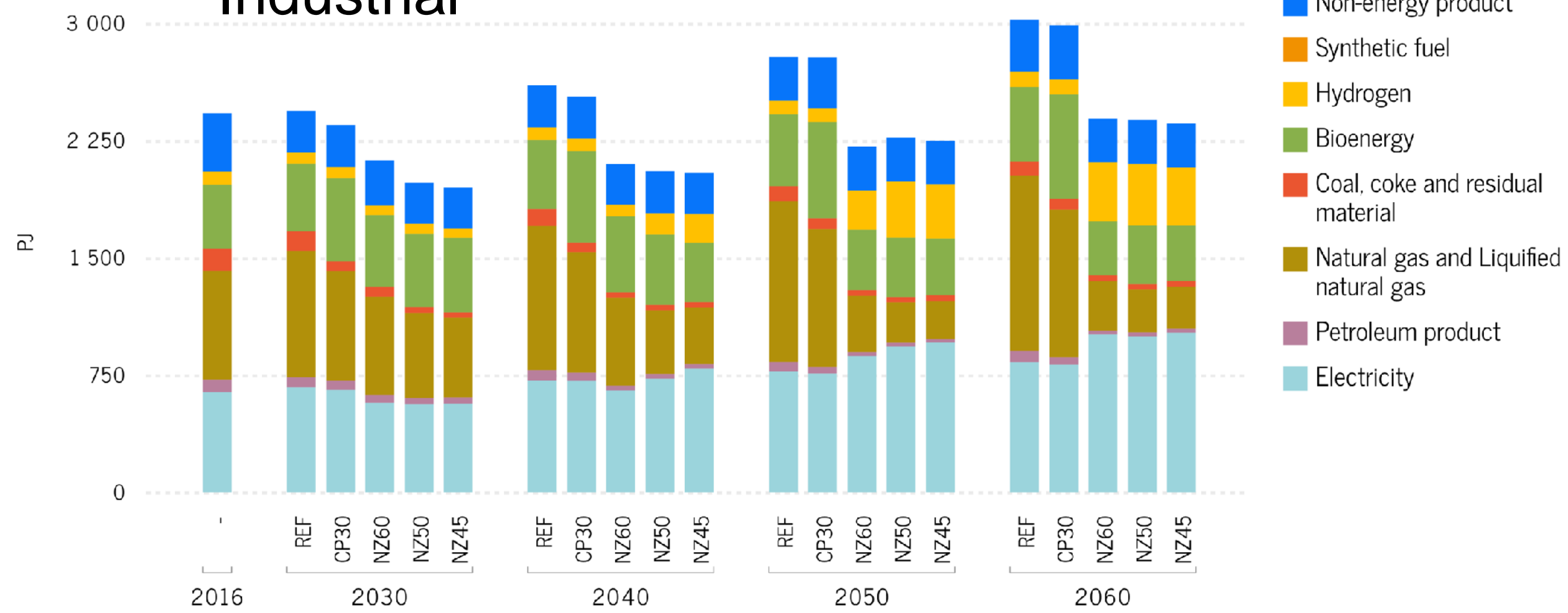
## Residential and commercial



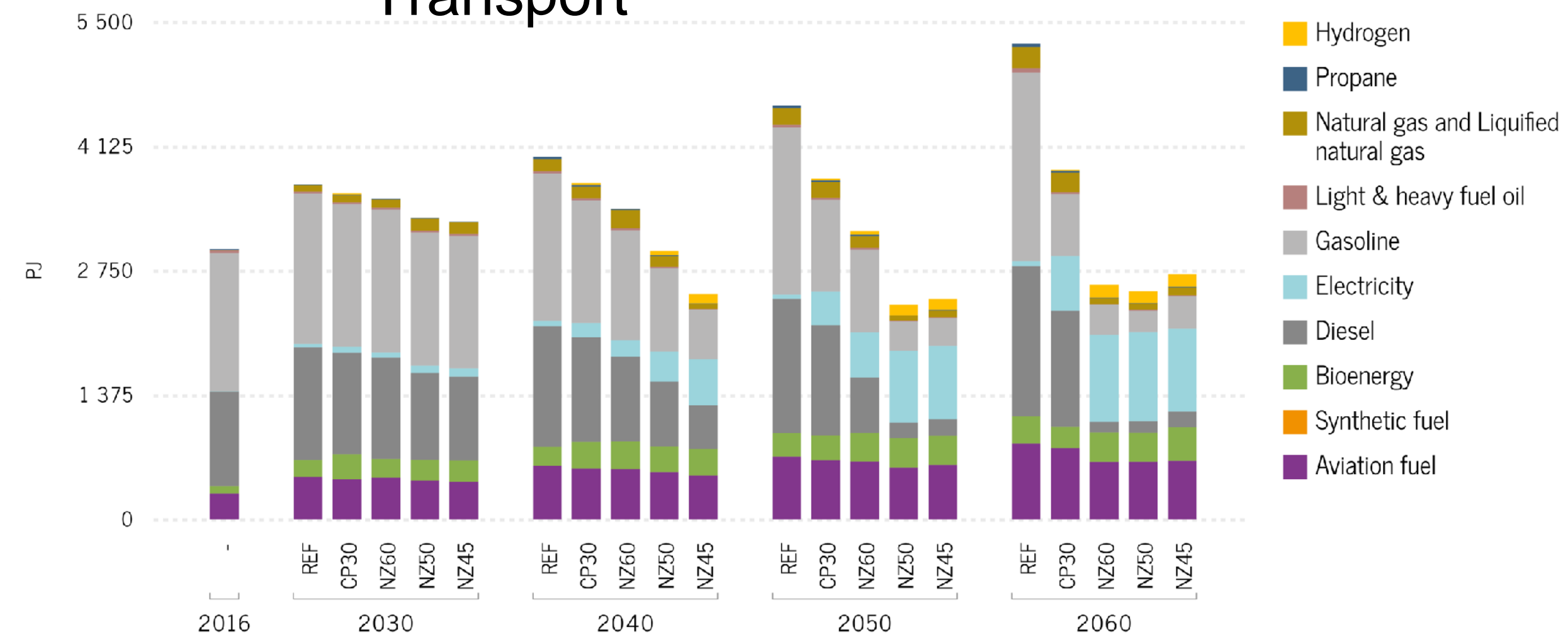
## Agriculture



## Industrial



## Transport



# Share of electricity (NZ50)

	2016	2030	2050
Electricity Production	1	1,04	2,10
Buildings	43 %	53 %	90 %
Industry	31 %	33 %	47 %
Transport	1 %	2,6 %	39 %





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# Webinaire Aujourd'hui @ 13h Infos:

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*Horizon  
2060*



# Perspectives énergétiques canadiennes 2021

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