

Energy Infrastructure Transformation

Sustainable development opportunities for Colorado

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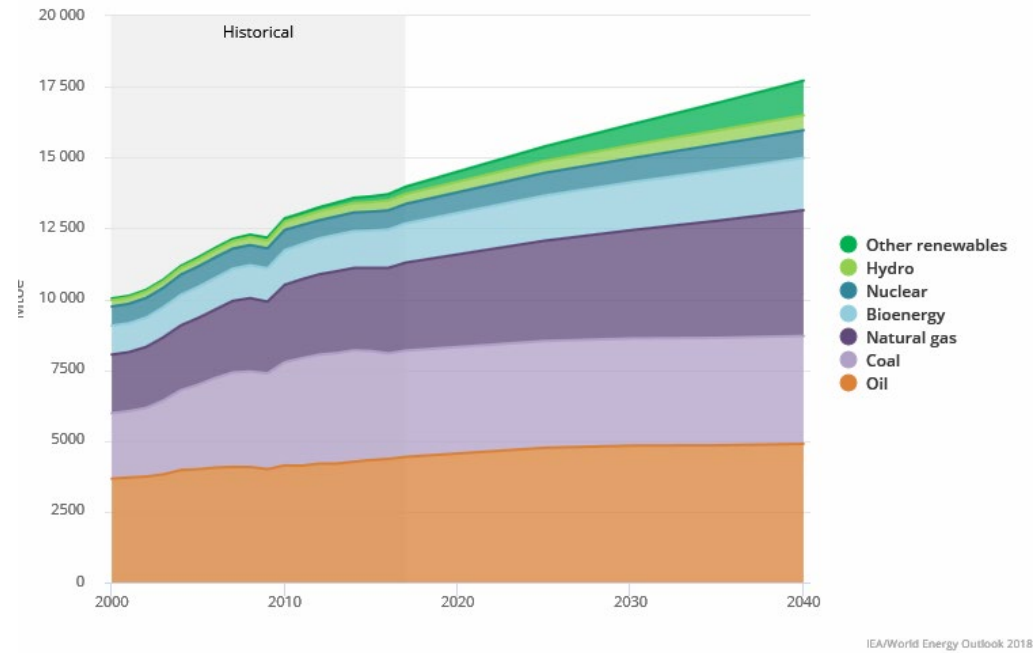
**Energy Legislation Review Interim Study
Committee**

13 September 2019

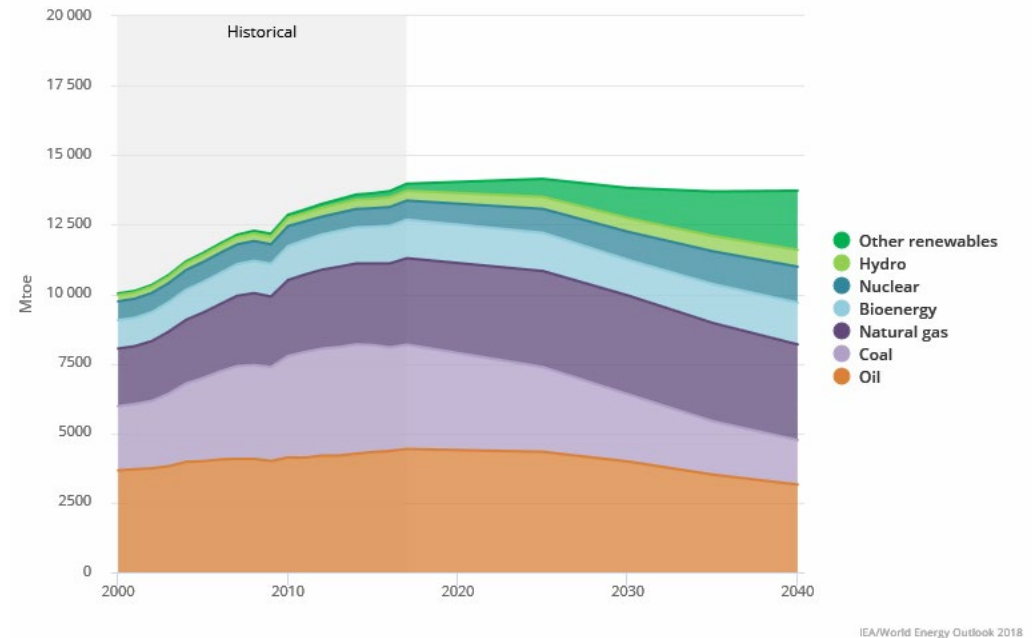
**Colorado Mesa University, Grand Junction
Colorado**

World energy demand under differing policy scenarios

New policies scenario

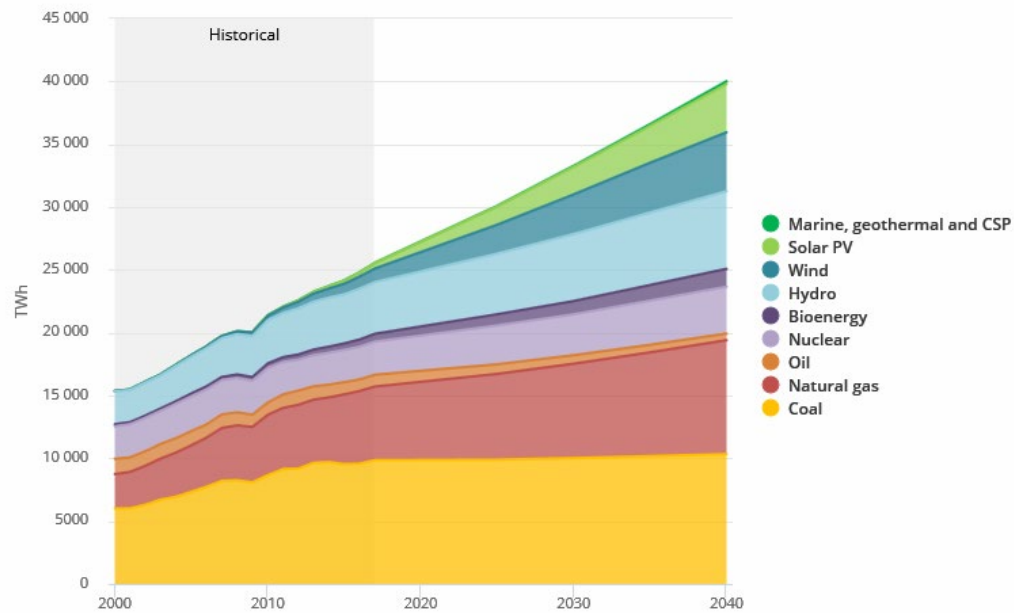


Sustainable development scenario

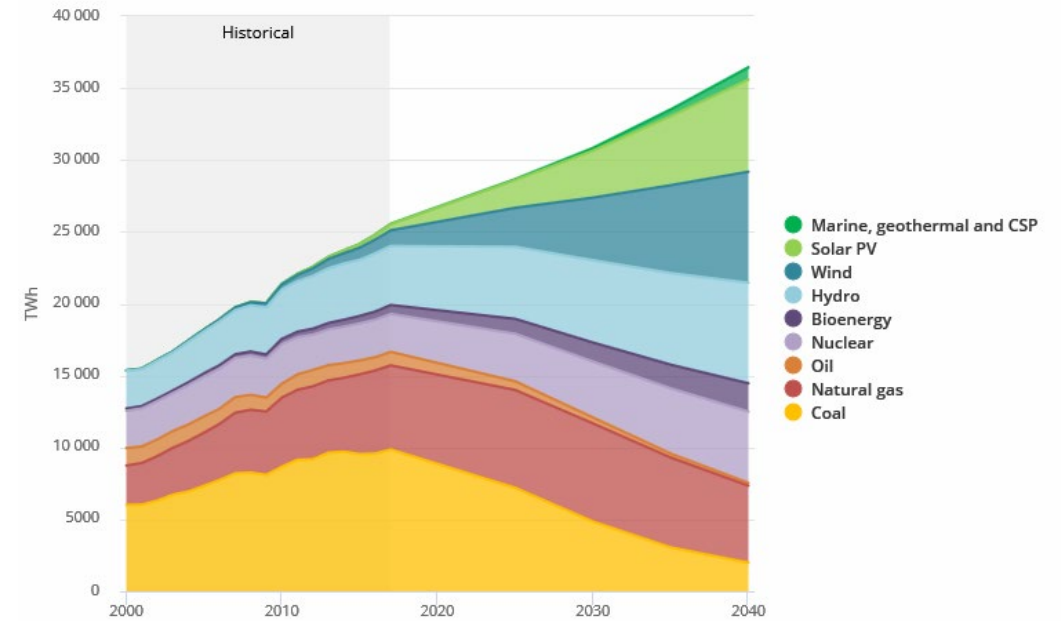


World electricity production by technology under differing policy scenarios

New policies scenario

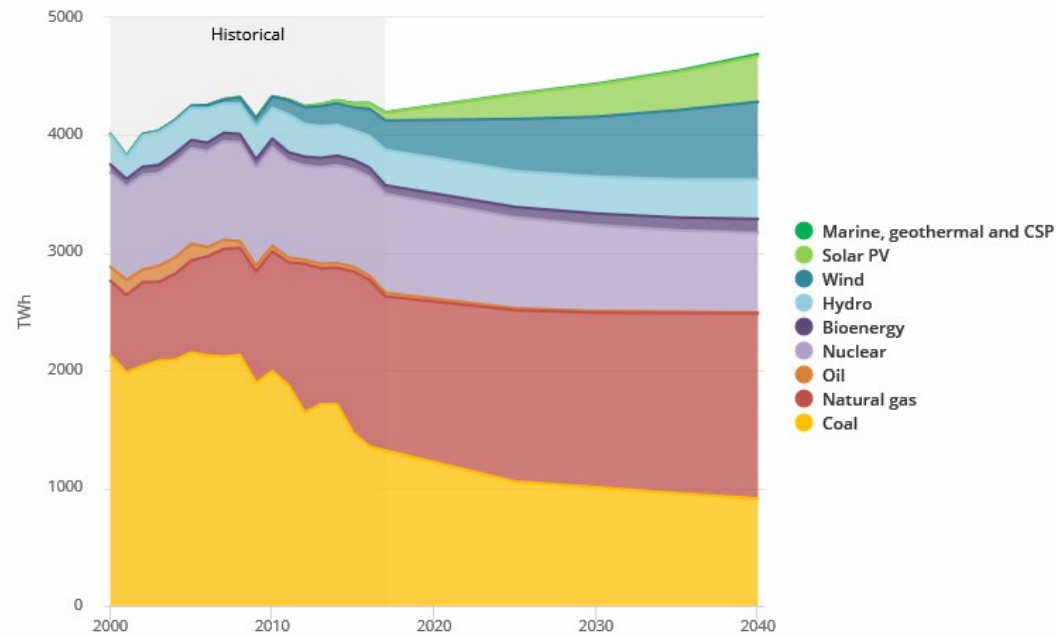


Sustainable development scenario

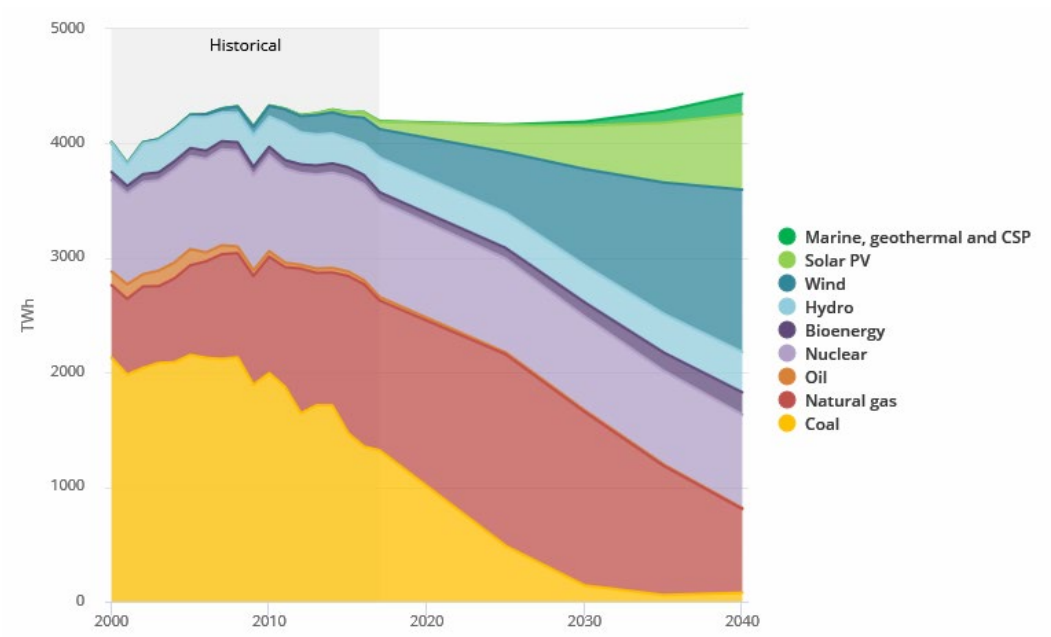


USA electricity production by technology under differing policy scenarios

New policies scenario

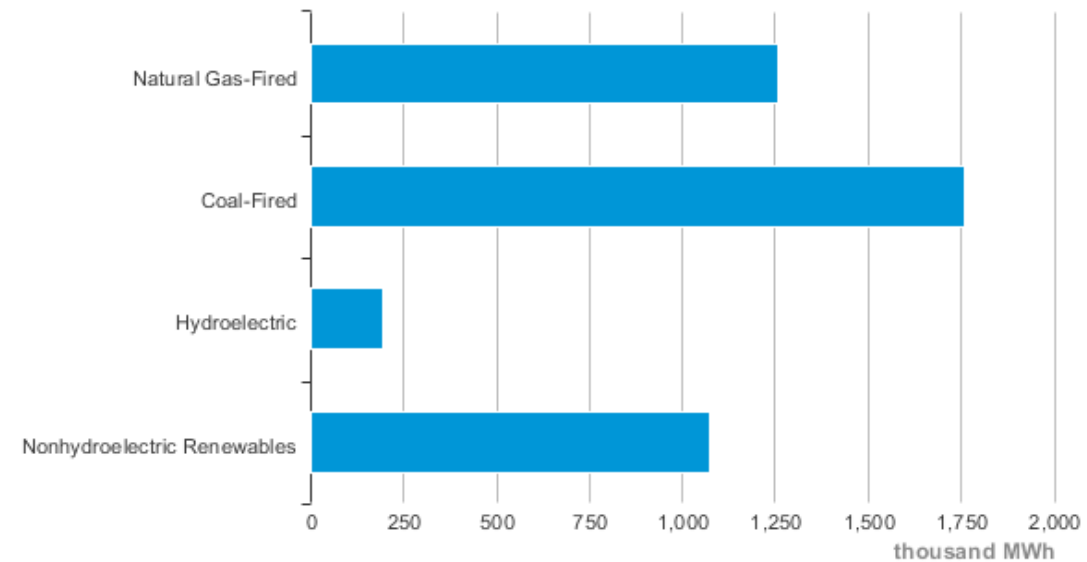


Sustainable development scenario



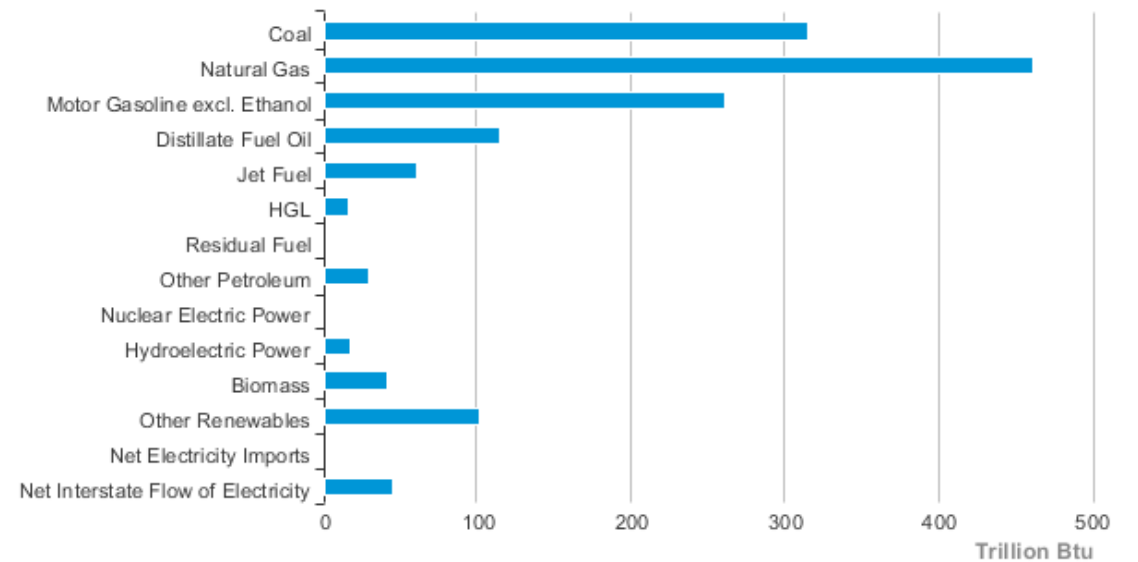
How does energy production and consumption in Colorado compared with the rest of the world?

Colorado Net Electricity Generation by Source, May. 2019

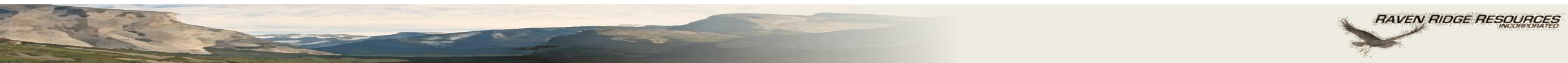


 Source: Energy Information Administration, Electric Power Monthly

Colorado Energy Consumption Estimates, 2017

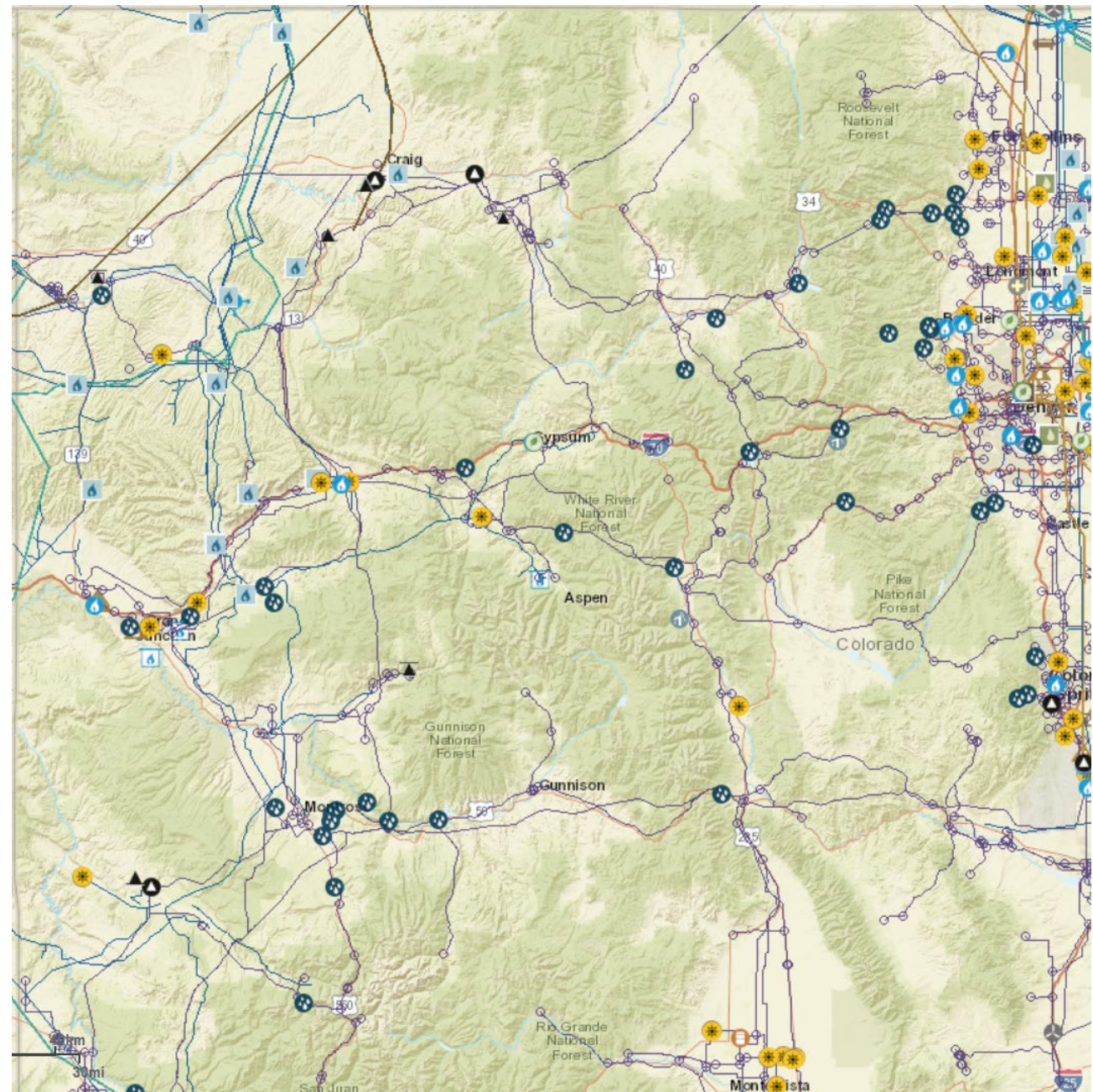


 Source: Energy Information Administration, State Energy Data System

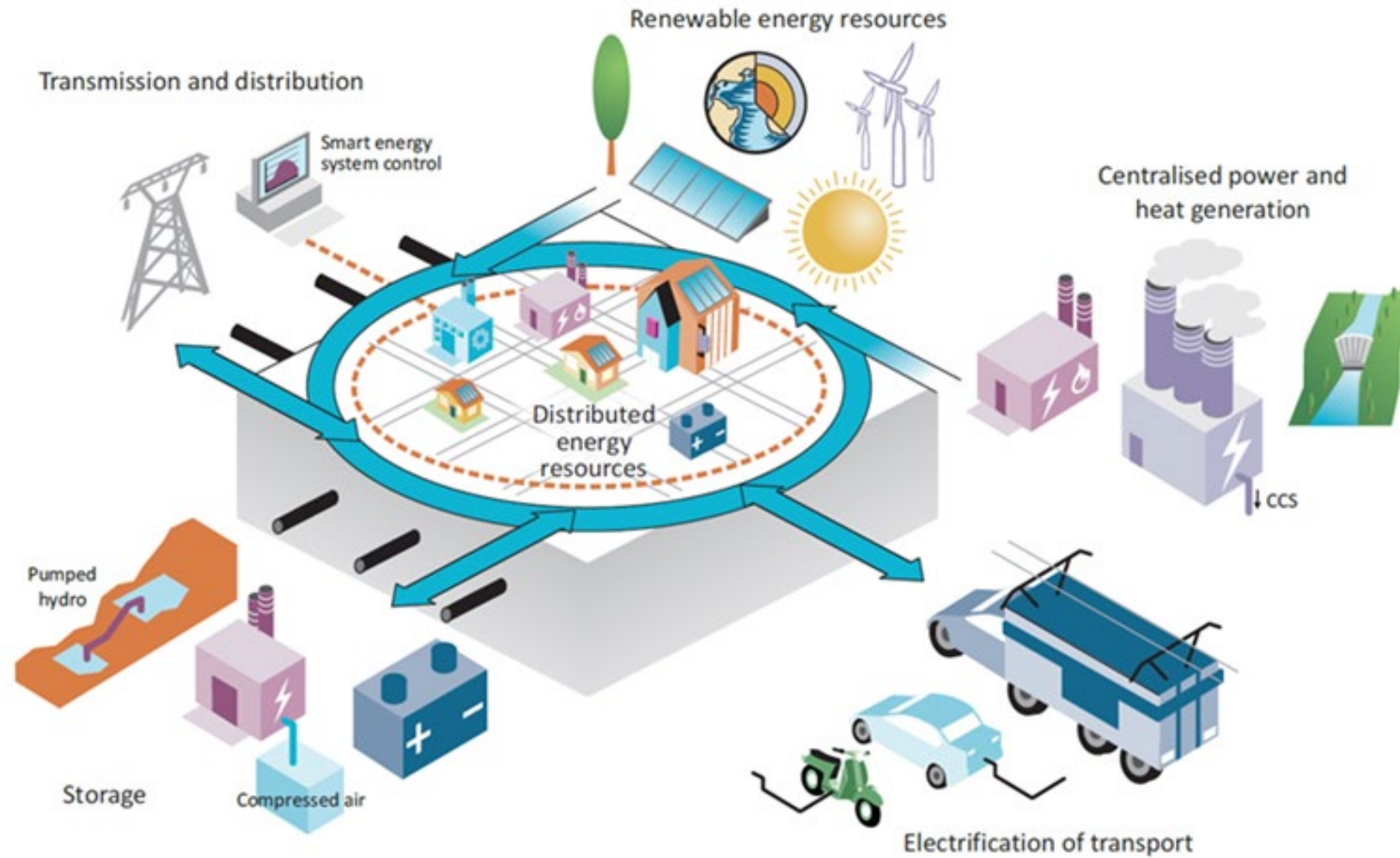


The energy production future of the Western Slope

- Continued decrease in coal production, use and export potential
- Continued coal mine methane opportunities for the next decade and abandoned mine methane for many decades
- Continued increase in natural gas production and use along with export potential with uncertain opportunities
- World class opportunity for solar energy production—now virtually untapped
- Wind in certain locales
- Biomass production from beetle kill forests and understory removal
- Increase in energy efficiency—the first fuel



Modern integrated energy infrastructure



Policies that can lead to a sustainable energy economy future for the Western Slope

- Policies related to building construction which lead to increased solar energy production and energy efficiency
 - Increase in rooftop solar for commercial and residential with enabling legislation that guarantees proper valuation in real estate appraisals
 - Local and state tax incentives for real estate developers to build with higher energy efficiency under revised construction codes
 - Solar energy parks
- Enabling legislation that requires state and county fleets to use CNG, LNG, dual fuel, and hybrid systems
 - OEM equipment for dual fuel use can occur rapidly with wider adoption as equipment is replaced.
- Increase educational and training opportunities, by working with Colorado Mesa University, and other Western Slope universities to become a hubs for sustainable energy development, infrastructure transformation, and training that underpins just transitions for energy workers
- Build public private partnerships to ensure sustainable growth and development. This should be a philosophy adopted by economic development organizations. Look for partners not bargain hunters.

Thank you!

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