POLICY *Brief*

JOHNSON SHOYAMA

SASKATCHEWAN AND THE NUCLEAR OPTION: Addressing Climate Change through Nuclear Electricity Innovation

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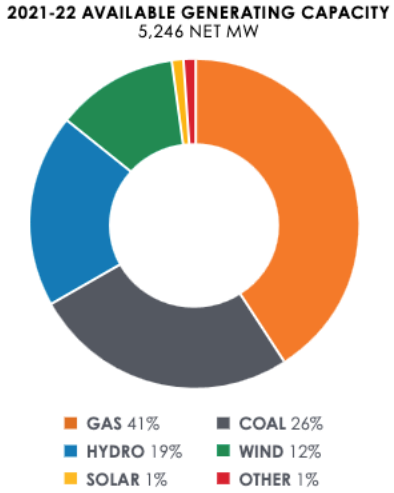
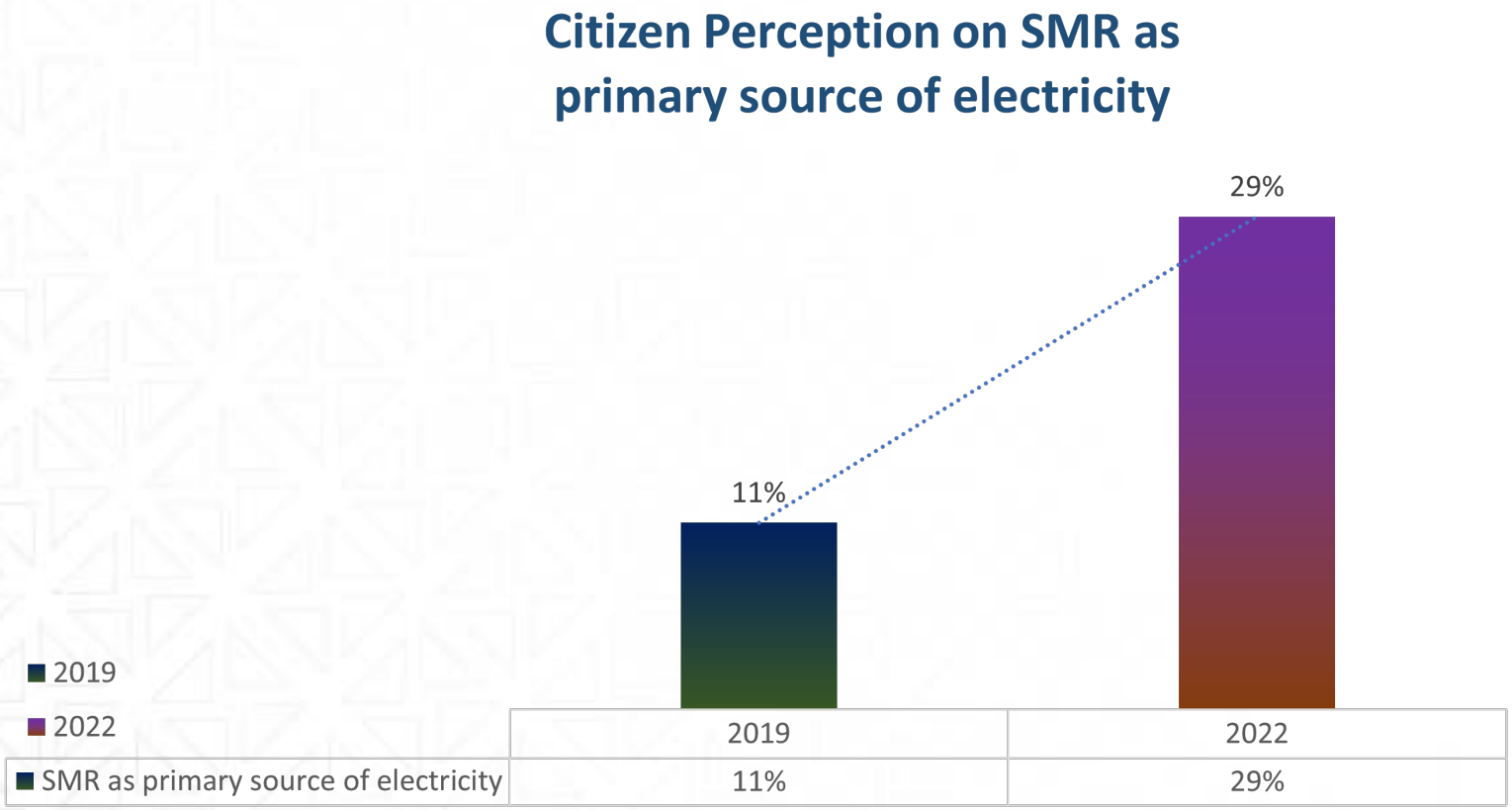
Policy Brief: CONTEXT

- Canada has a goal of net zero GHG emissions by 2050
- Saskatchewan has the highest per capita GHG emissions in Canada
- About 81 per cent of Saskatchewan's electricity is fossil-fuel generated
- 21 per cent is from coal; 40 per cent from natural gas
- Coal without carbon capture will be phased out by 2030
- Saskatchewan has the world's richest deposits of uranium



Support for SMRs is growing; but not unanimous



POLICY BRIEF: CONSIDERATIONS

- Fossil fuels currently are critical to assuring base power supply
- Wind and solar power is intermittent
- Battery storage technology is not sufficient to provide backup
- Need dependable replacement for fossil fuel electricity
- Saskatchewan a world leader in uranium mining
- Safety & waste is key concern of public regarding nuclear power
- Opposition to nuclear power appears to be weakening
- Ottawa issued Small Modular Reactor Action Plan
- Saskatchewan-based Cameco engaged in SMR development

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Policy Brief: Discussion Questions

1. What are the pros and cons of nuclear power for Saskatchewan?
2. Is net zero possible without nuclear as part of the energy mix?
3. How do you guarantee a base power load without nuclear?
4. What are cost implications of the nuclear option?
5. Should Saskatchewan become part of the full nuclear fuel cycle?
6. How should government engage the public on the issue?