



Emissions Reduction Alberta (ERA)

NRCan Clean Growth Program Partnership

Mark Summers (msummers@eralberta.ca)

Emissions Reduction Alberta

January 3, 2018

Emissions Reduction Alberta (ERA)

- Alberta-based not-for profit organization
- Created in 2009 as Climate Change and Emissions Management Corporation (CCEMC)
- Rebranded as Emissions Reduction Alberta (ERA) in 2016
- Support provincial priorities – *Climate Leadership Plan*

Mandate: Identify and accelerate innovative solutions that secure Alberta's success in a lower carbon economy

- Invest in technology advancement to build a sustainable and diversified economy
- Supported by the SGER/CCIR compliance fund

ERA's Investments at a Glance



TOTAL
PROJECTS:
>120



TOTAL FUNDS
COMMITTED:
>\$324M



TOTAL PROJECT
VALUE:
>\$2B



CUMULATIVE GHG
REDUCTIONS BY 2020:
8Mt CO₂e



GDP IMPACT IN
ALBERTA BY 2021:
\$1.8B



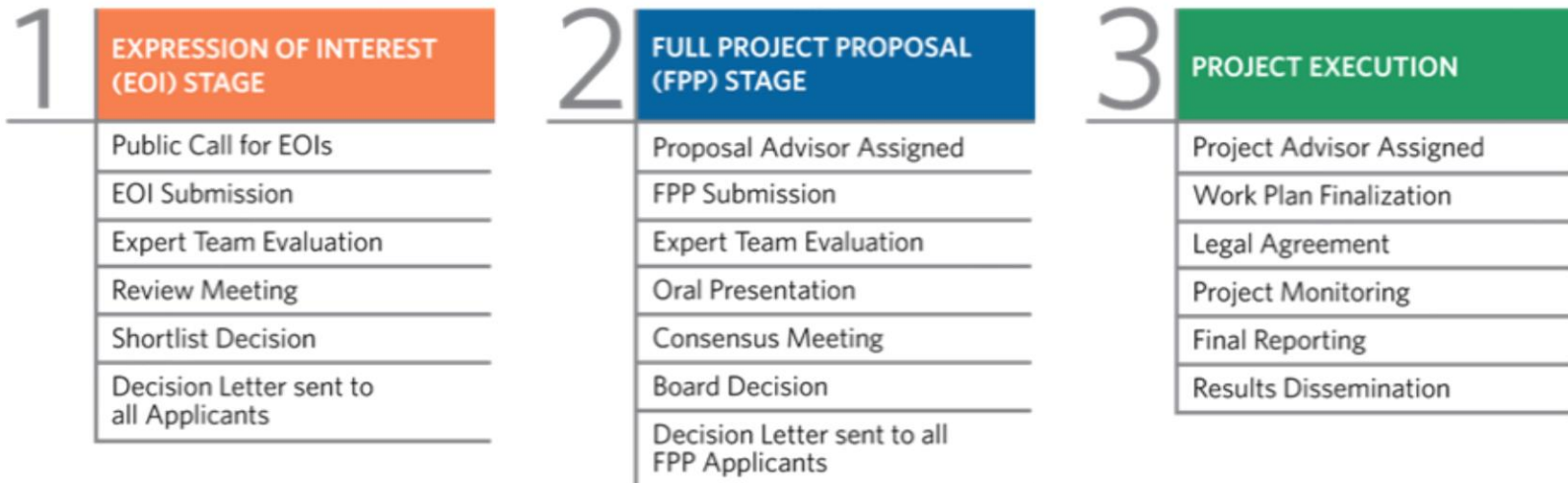
JOB CREATION IN
ALBERTA BY 2021:
**15,000+
PERSON-YEARS²**

CUMULATIVE GHG
REDUCTIONS BY 2030:
27.4Mt CO₂e

How We Fund

- ERA operates on a call-for proposals basis
- Approximately two calls per year
- Generally thematic or targeting specific needs
 - e.g. Methane Challenge (2016), Oil Sands Innovation Challenge (2017)

Staged Application Process



Partnership Intake Process

- ERA has established trusted partnerships with a number of like-minded organizations
 - e.g. Alberta Innovates, SDTC, Ontario Centres of Excellence, NRCan, others
- Trusted partnership organizations:
 - Funding organizations with comparable-in-principle process
 - Government departments and agencies OR organizations with strong alignment
 - Have MoU or information sharing agreement with ERA
- ERA is participating in the CGP through our trusted partnership with NRCan
 - Existing/approved ERA projects are welcome seek additional funding via CGP
 - New proposals to CGP that are a strong fit for ERA will also be considered

Note: All projects are subject to ERA's due diligence process and approval by ERA's board of directors

ERA Strategic Areas of Focus

Strategic Areas

Reduced GHG Fossil
Fuels

Low Emitting
Electricity

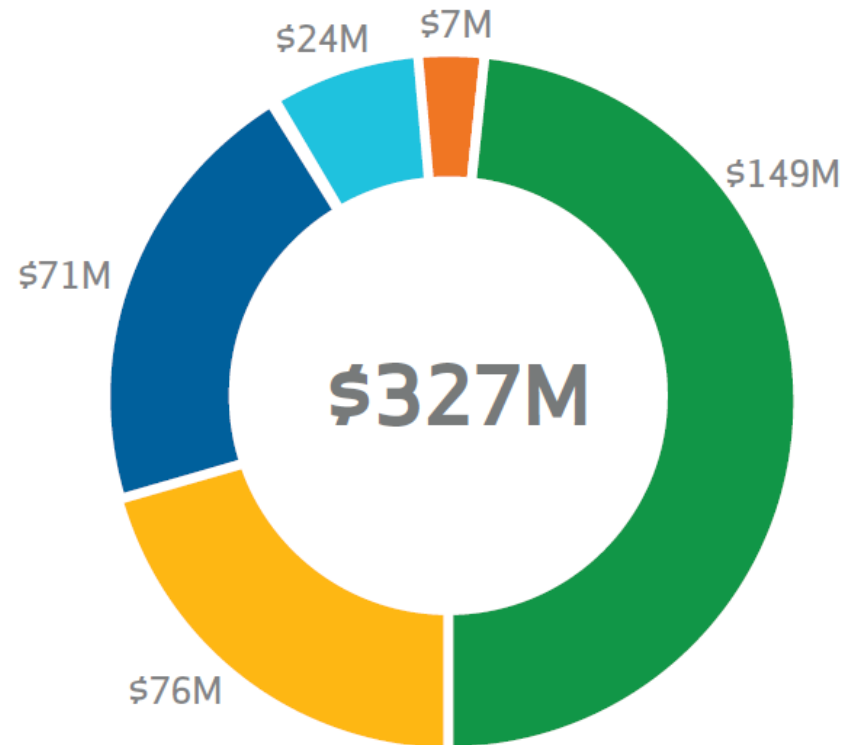
Biological Resource
Optimization

Industrial Process
Efficiency

Example Potential Initiatives

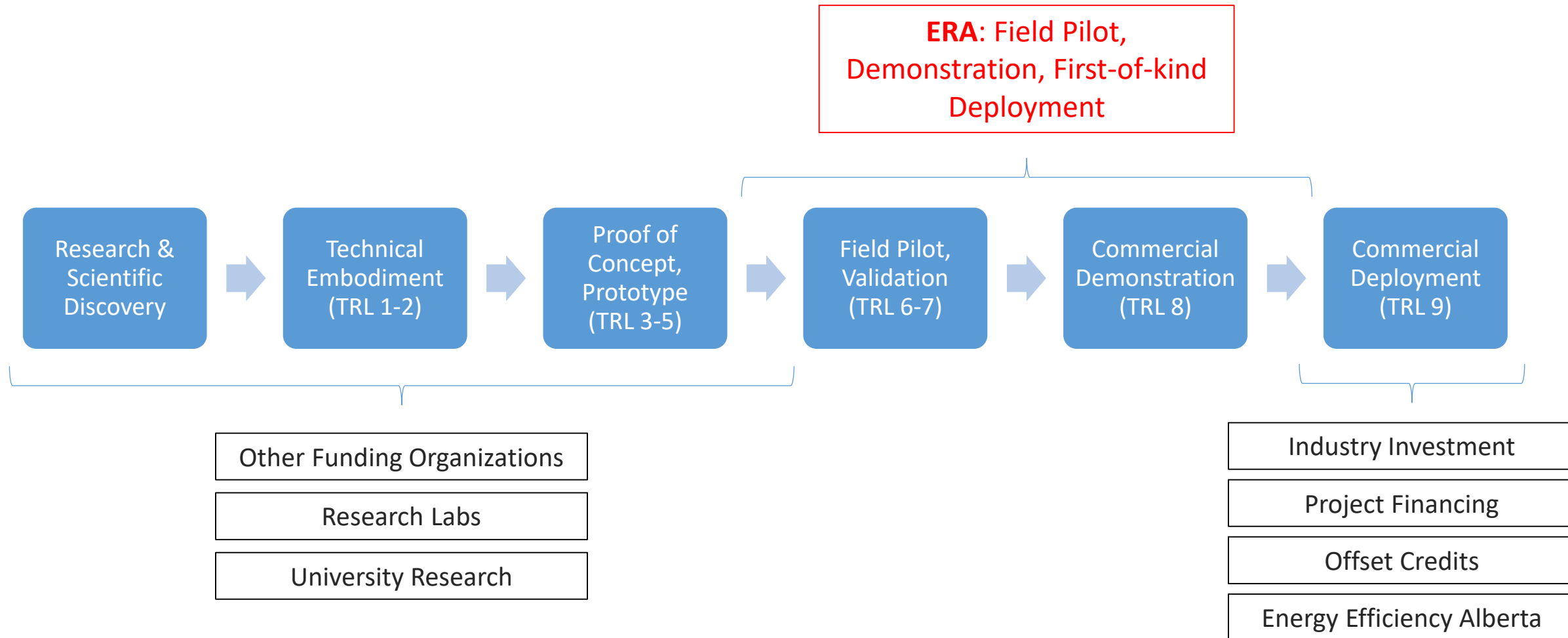
- Low energy bitumen recovery
- Methane emissions reduction
- Hydrocarbon processing
- Renewable electricity
- Geothermal
- Advanced grid management
- Biofuels
- Bio-materials and bio-products
- Waste management
- Industrial energy efficiency
- Industrial process innovation
- Low-GHG chemicals and materials

Investment Portfolio Summary



- REDUCED GHG FOOTPRINT OF FOSSIL FUEL SUPPLY (45 PROJECTS)
- LOW-EMITTING ELECTRICITY SUPPLY (12 PROJECTS)
- BIOLOGICAL RESOURCE OPTIMIZATION (37 PROJECTS)
- INDUSTRIAL PROCESS EFFICIENCY (25 PROJECTS)
- ADAPTATION (3 PROJECTS)

ERA's Role in Technology Advancement

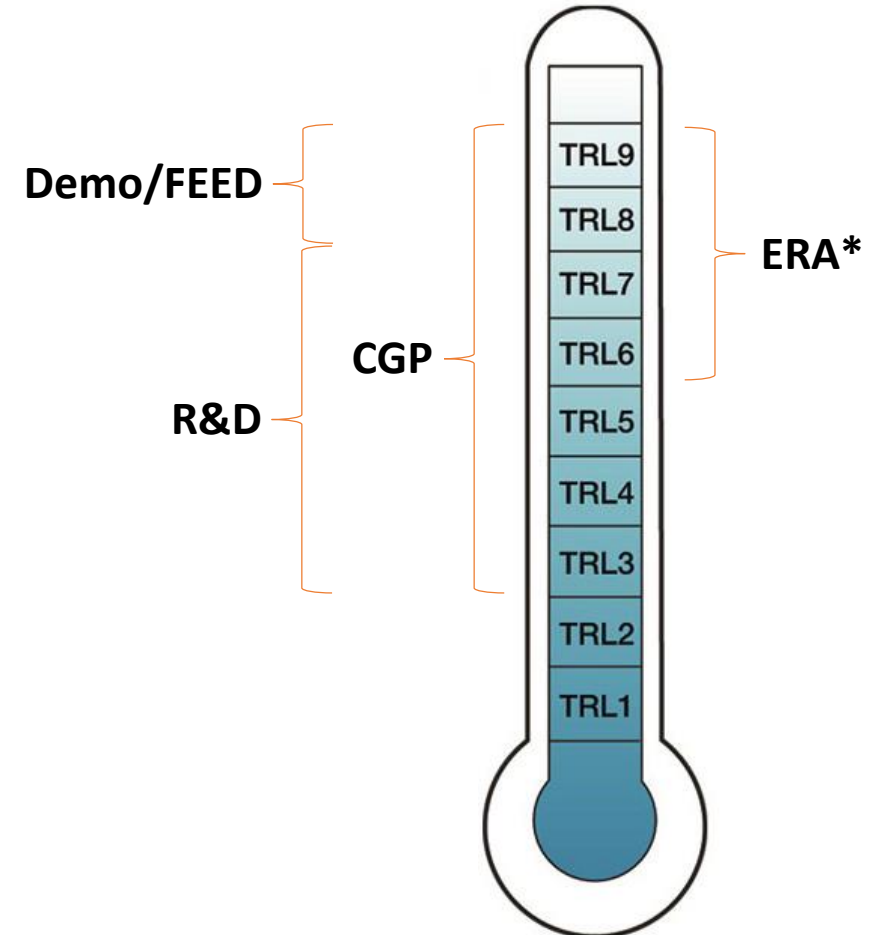


NRCan Clean Growth Program Overlap

CGP Focus Areas

1. Reducing greenhouse gas and air-polluting emissions
2. Minimizing landscape disturbances and improving waste management
3. The production and use of advanced materials and bioproducts
4. Efficient energy use and productivity
5. Reducing water use and impacts on aquatic ecosystems

Technology Readiness Level



*Note: Opportunities between ERA and AI at TRL 3 to ~9