



## Commonwealth of Dominica

### Island Resilience Action Challenge (IRAC) Grid Resilience Cost Gap working group

# Commonwealth of Dominica-at-a-glance

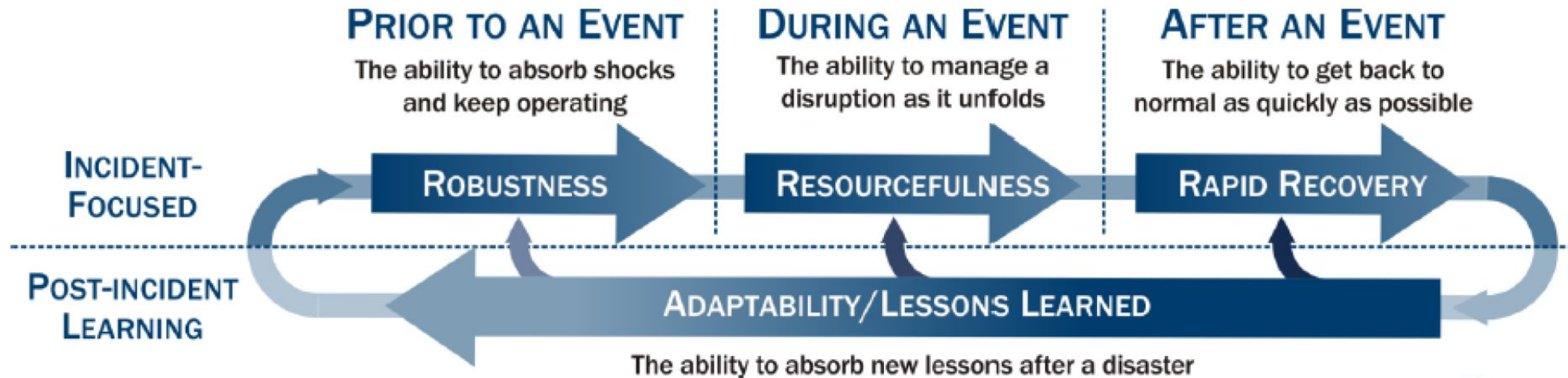


## Key Highlights

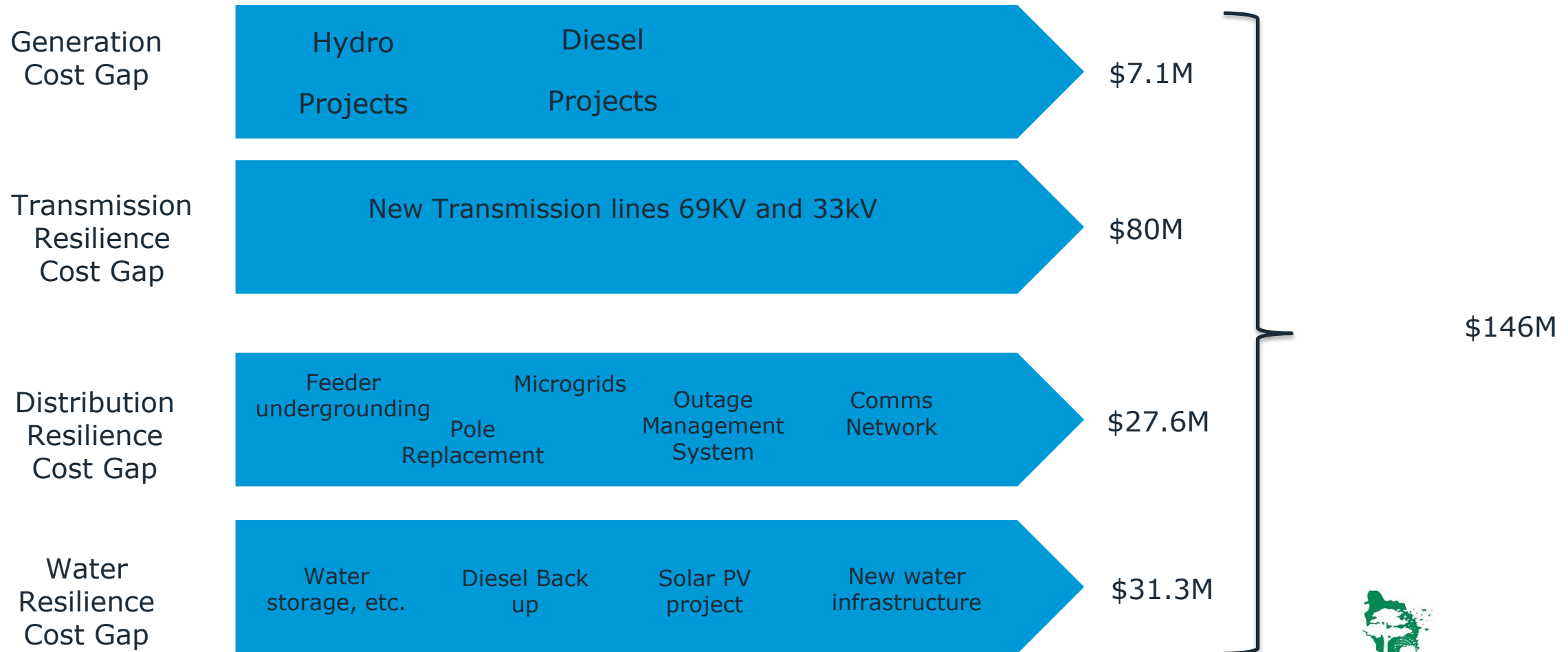
- 750 sq kms; population ~72,000
- High mountain area ~4750 ft tall mountain
- Dense population in limited flat regions
- Large hydrothermal/geothermal generation projects
- Nation vulnerable to hurricanes, heavy rains and floods
- Grid resilience cost gap identified as critical next step in May 2022 CREF event
- Needs new 69kV/33kV transmission line

# Grid hardening needed to defend against HILF events

- **Limitations; Not everything in grid resilience can be quantified, predicted or even anticipated**
- Growing awareness of robust new approaches to grid resiliency; Focus on **high Impact low frequency** (HILF) events like Hurricanes



# Dominica Grid Resiliency Costs



# Economic ROI to cover Grid Resilience Cost Gap

- The GDP of the commonwealth of Dominica is estimated \$600M
- A Cat 5 hurricane could put the whole economy at risk; Hurricane Maria impact was **\$1.3B** for Dominica
- The daily GDP impact therefore is **\$3.6M**
- The grid resilience cost gap is **\$146M**
- At 12% borrowing rate, interest payments a year estimated at \$17M or \$48K a day
- At 2% bond rate, interest rate a year is \$2.9M or \$8K a day



**Cost of inaction vs affordability of electricity dilemma**

# Caribbean Development Bank- Recovery Duration Adjuster

