

# → Implications of Advanced Nuclear Energy

Proponents of advanced nuclear technologies such as small modular reactors (SMRs) present them as a technological fix for climate change and energy insecurity in a world of increasing energy demand. However, our research shows that without better and robust governance frameworks, the widespread adoption of SMRs will have harmful local and global impacts.

1

## SMRS WILL ENTRENCH GLOBAL DISPARITIES

Exporting nuclear states will leverage SMR technology and infrastructure to advance their geopolitical, economic, and strategic interests. They will profit from SMR adopters without providing support to ensure benefits, reinforcing neocolonial dependencies.

2

## SMRS WILL PRIVILEGE MARKETS OVER THE PUBLIC GOOD

The SMR industry promises faster and cheaper deployment than conventional reactors but will prioritize speed and profit considerations over public interests, natural resource protection, and safety. This will undermine equitable climate change mitigation and energy distribution and encourage the evasion of regulatory oversight.

3

## SMR PROponents WILL DISREGARD LOCAL AND INDIGENOUS KNOWLEDGE

SMR proponents frame the expansion of nuclear energy as a net global good. Industry and governments will invalidate local and Indigenous expertise, especially when it identifies potential environmental and community harms that threaten this pursuit.

4

## SMRS WILL INTENSIFY ENVIRONMENTAL INJUSTICES

While claiming to address the climate crisis, SMRs and their supply chain will create other environmental hazards, such as from extractive activities and the co-location of polluting industries that threaten the land and health of marginalized communities. Vulnerable communities will have few avenues to combat these harms.

5

## SMR DEVELOPERS WILL ABANDON PROMISES OF LOCAL DEVELOPMENT AND EMPOWERMENT

Proponents promise that SMRs will bring local jobs, economic development, and empowerment to host communities. However, opportunities for local workers will be limited, and marginalized populations will end up with the riskiest jobs. Though proponents argue that SMRs are well suited for community governance, industry profit motives and innovation pressures will preclude local ownership of energy infrastructure.

*University of Michigan's Technology Assessment Project recently published "The Reactor Around the Corner: Understanding Advanced Nuclear Energy Futures". The report studied previous technologies to anticipate the implications of small modular reactors. The main findings are above. The report also provides recommendations for policymakers, engineers, and governments for responsibly developing, building, and regulating SMRs and their supply chain.*

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