

# Modeling UIUC campus using Temoa

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ILLINOIS

## Outline



### ① Cost minimization

Emissions  
Chilled water  
Electricity  
Steam  
Vehicle fleet

### ② Land minimization

Emissions  
Chilled water  
Electricity  
Steam  
Vehicle fleet

### ③ Conclusion

## Cost scenario: Emissions constraint

I

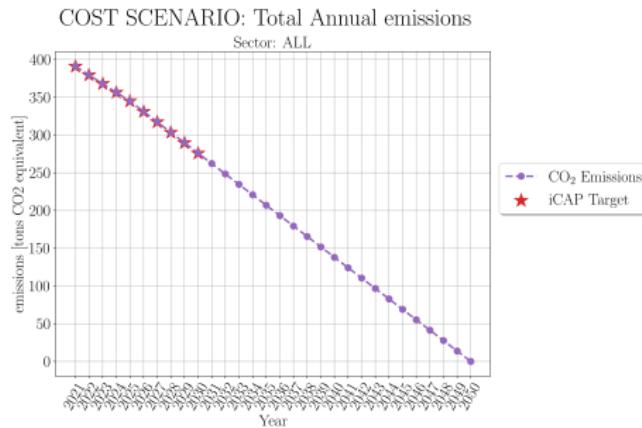


Figure: We use a linear constraint for annual emissions based on the current iCAP goals.

## Cost scenario: E-waste production

I

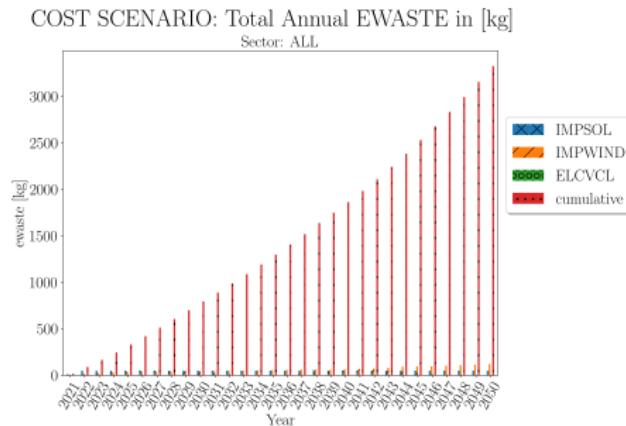


Figure: .

## Cost scenario: Spent fuel production

I

COST SCENARIO: Total Annual SPENT-FUEL in [kg]  
Sector: ALL

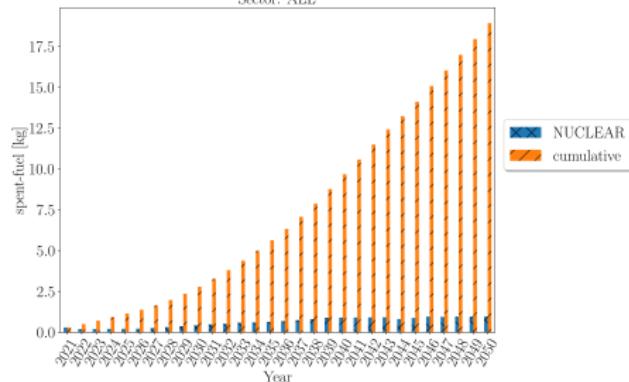


Figure: .

## Cost scenario: Chilled water

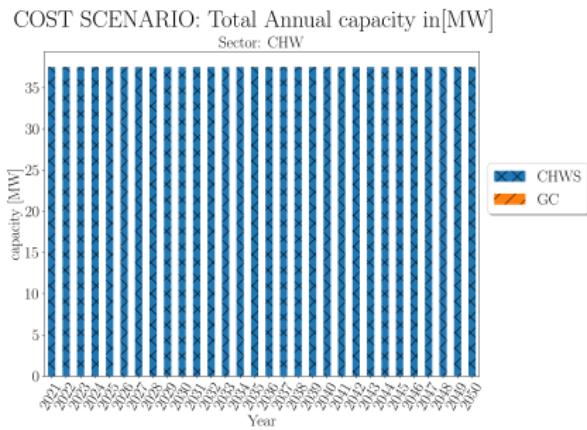


Figure: .

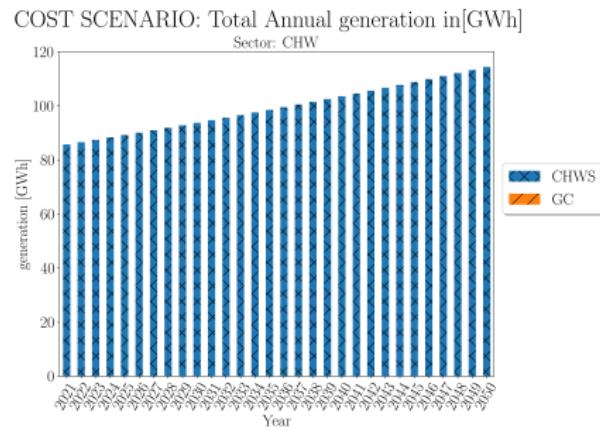


Figure: .

## Cost scenario: Electricity sector

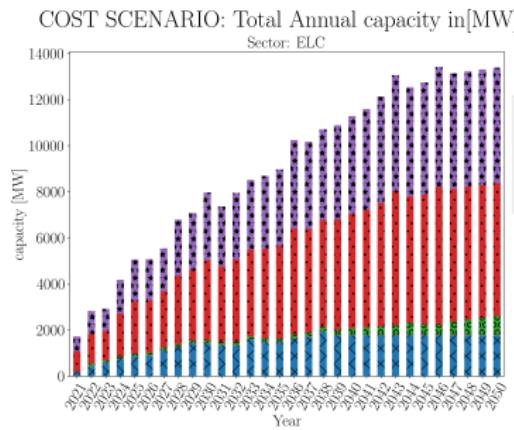


Figure: .

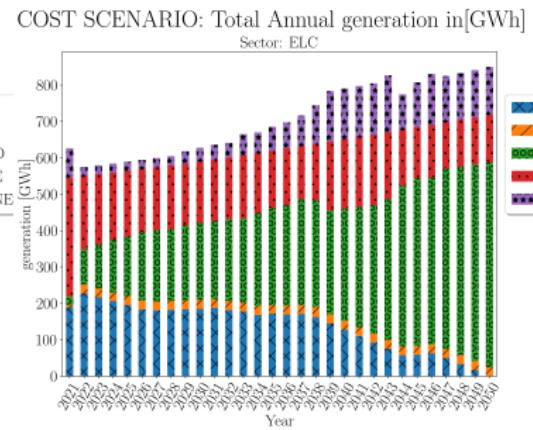


Figure: .

## Cost scenario: Steam sector

I

COST SCENARIO: Total Annual capacity in[MW]  
Sector: IND

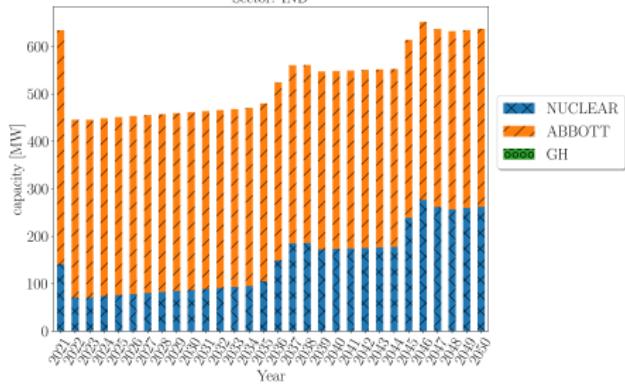


Figure: .

COST SCENARIO: Total Annual generation in[GWh]  
Sector: IND

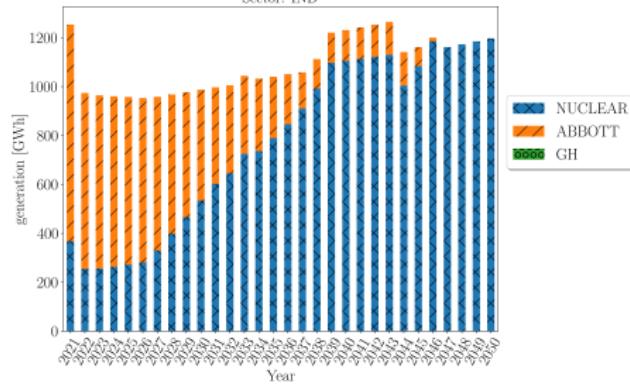


Figure: .

## Cost scenario: Vehicle fleet

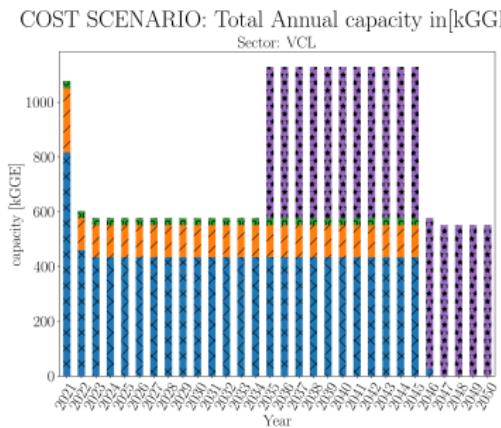


Figure: .

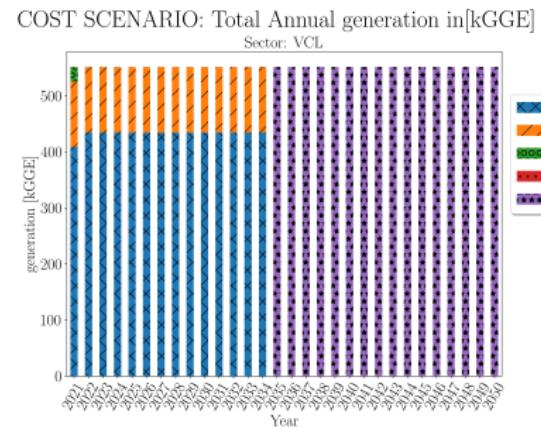


Figure: .

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## Land scenario: Emissions constraint

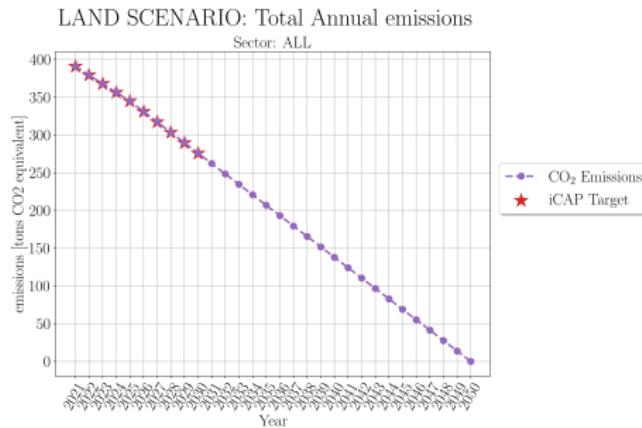


Figure: We use a linear constraint for annual emissions based on the current iCAP goals.

## Land scenario: E-waste production

I

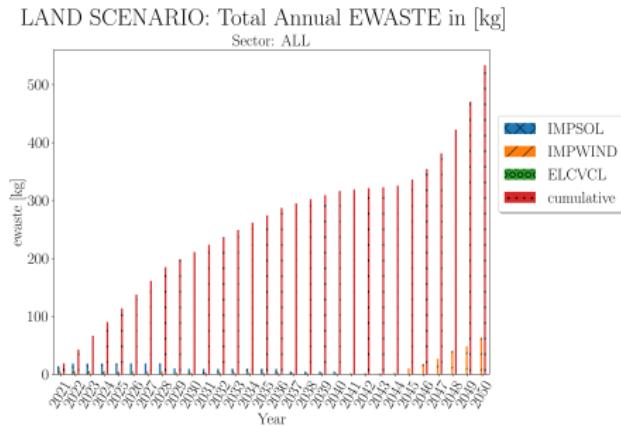


Figure: .

## Land scenario: Spent fuel production

I

LAND SCENARIO: Total Annual SPENT-FUEL in [kg]  
Sector: ALL

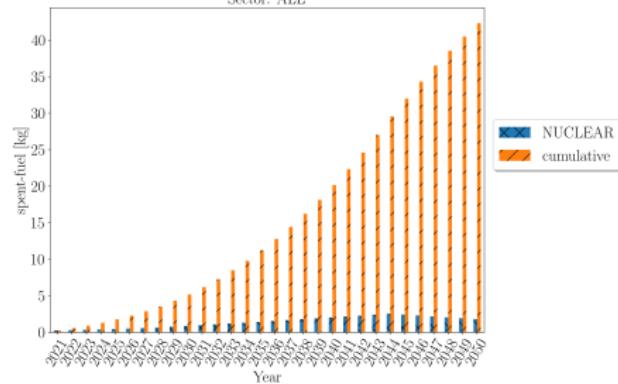


Figure: .

## Land scenario: Chilled water capacity

I

LAND SCENARIO: Total Annual capacity in[MW]  
Sector: CHW

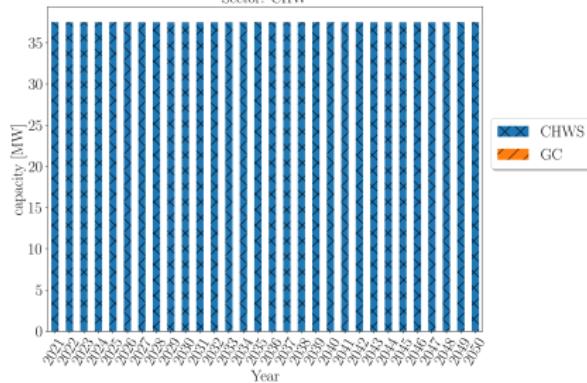


Figure: .

## Land scenario: Chilled water generation

I

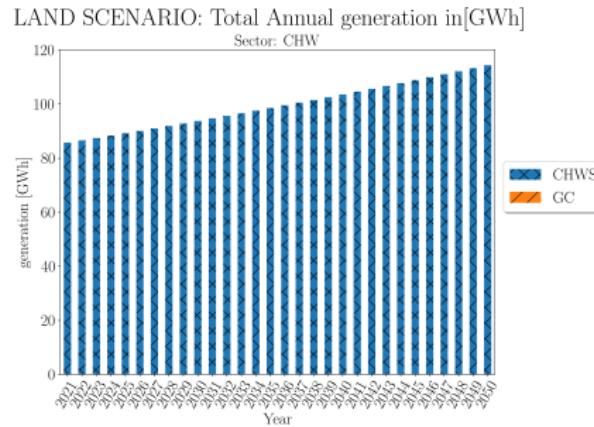


Figure: .

## Land scenario: Electricity generating capacity

I

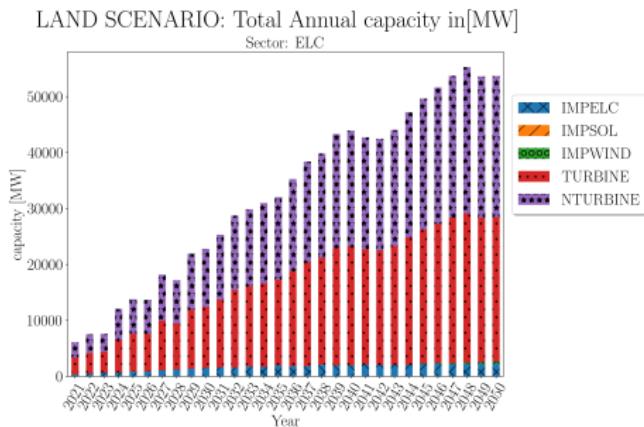


Figure: .

## Land scenario: Electricity generation

I

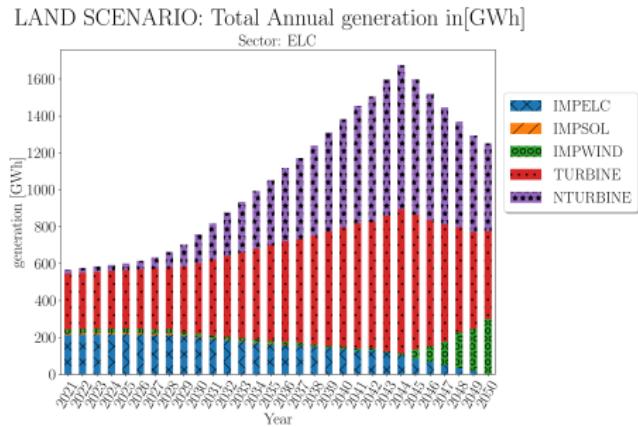


Figure: .

## Land scenario: Steam generating capacity

I

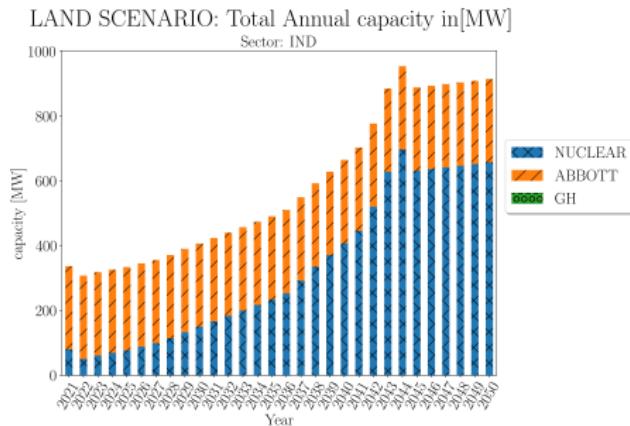


Figure: .

## Land scenario: Steam generation

I

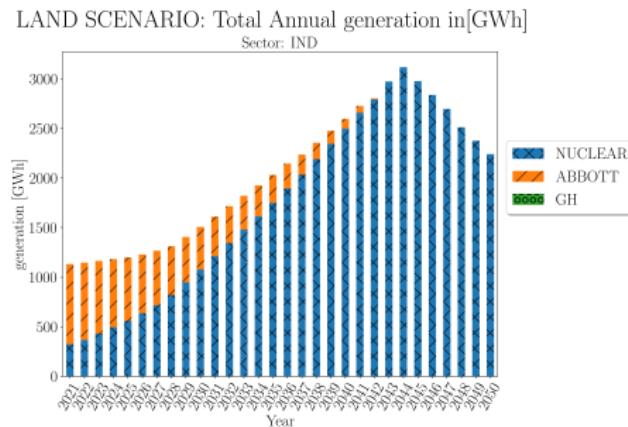


Figure: .

## Land scenario: Vehicle fleet capacity

I

LAND SCENARIO: Total Annual capacity in[kGGE]  
Sector: VCL

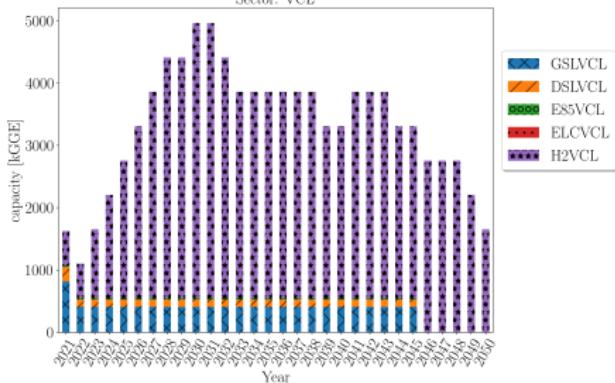


Figure: .

## Land scenario: Vehicle fleet usage

I

LAND SCENARIO: Total Annual generation in [kGGE]  
Sector: VCL

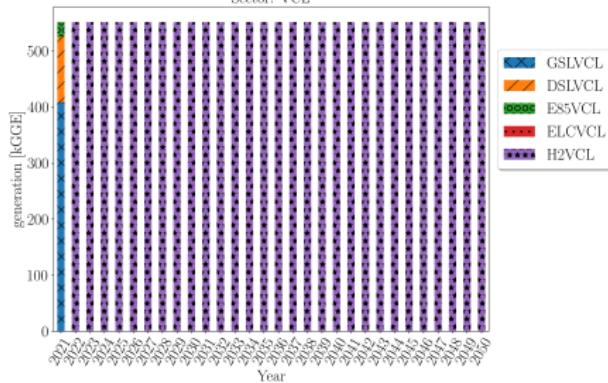


Figure: .

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### ① Cost minimization

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We showed many things.

- Cats are peculiar
- Blue and Orange are fierce colors
- Math can be rendered nicely
- Cite your sources

## Acknowledgement



Acknowledgements should include both people who helped and funding streams.  
If you are funded by an NEUP grant, that number usually goes here. .

## References I

