Internal Carbon Pricing Concepts

GC has adopted an internal carbon pricing mechanism to strengthen climate resilience and support its low-carbon transition.

The objectives are to:

- Drive energy efficiency
- Drive low-carbon investments
- Identify and seize low-carbon opportunities
- Navigate regulations
- Stress test investments

Scope Covered: Scope 1 & Scope 2 GHG emissions

Type: Shadow Price

Price Level: Average number at 70.5 USD/tCO2e (2,502 THB/tCO2e)

Application: Integrated across all business decision-making processes

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Internal Carbon Pricing: Shadow Price

To incorporate assumptions on full cost of decarbonization into business decisions

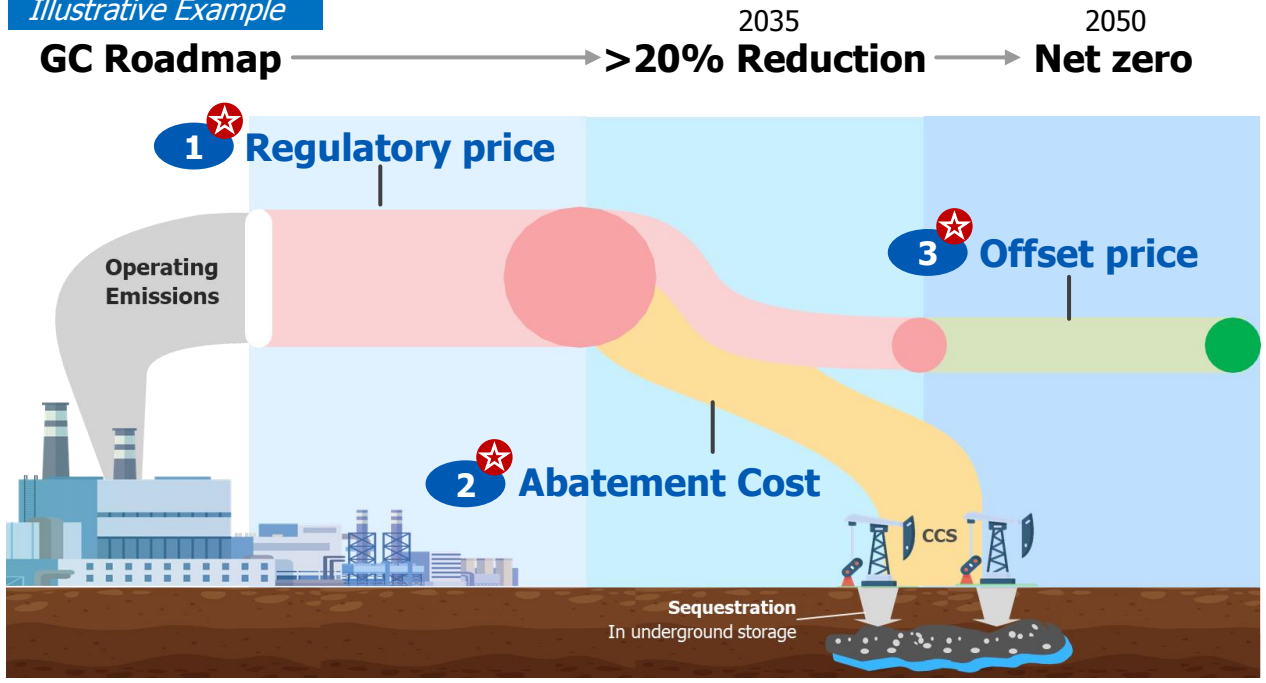
Application Area

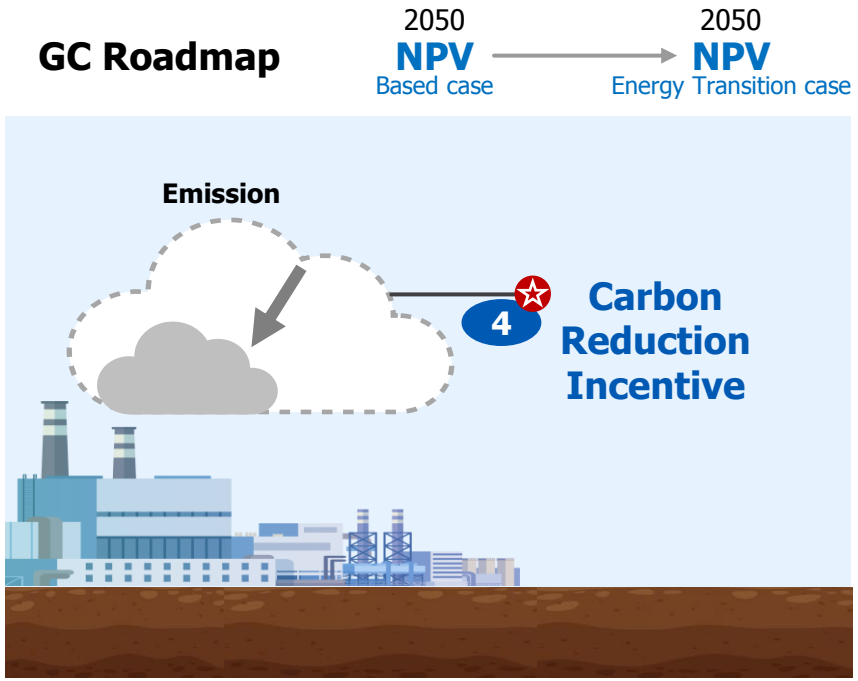
- Investments

Design Principles

- Investment decisions made on project economic that reflects
  - Target emissions of the new asset
  - Cost of carbon based on GC's decarbonization roadmap, or
  - Carbon reduction incentive based on GC's decarbonization roadmap

Illustrative Example





Corporate assumptions (annually updated)

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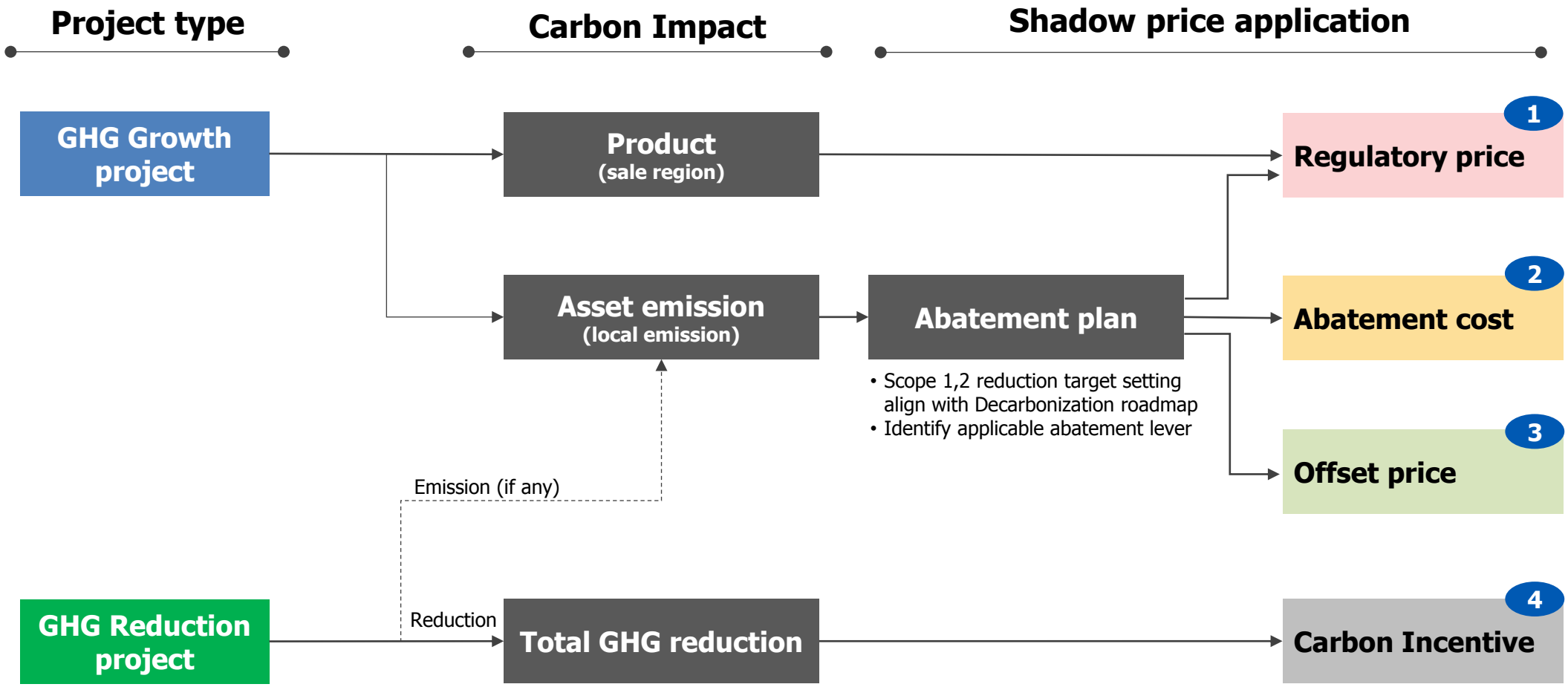
Internal Carbon Pricing: Shadow Price application



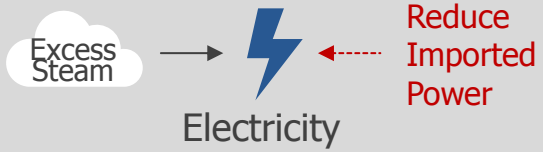
Example : Shadow price implement

New growth project
(w/o scope 1)

Shadow price model

- Replace all scope 2 with low carbon power & steam purchase
- % adaptation are aligned with clean energy plan
- Additional cost assigned:
  - Abatement cost: energy & steam
  - Regulatory price: residue emission + export geographics

Excess steam utilization
(Steam turbine power generator)



Shadow price model

- Lower quantities of low carbon power (external purchase) needed
- Saving cost assigned:
  - Abatement cost: Carbon incentive price

Cold energy utilization

Shadow price model

- Lower quantities of low carbon steam (external purchase) needed
- Saving cost assigned:
  - Abatement cost: Carbon incentive price

Shadow Price (average number at 70.5 USD/tCO2e (2,502 THB/tCO2e) and range between 14-113 USD/tCO2e

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