



# **Energy Saving Potential in Thailand:** **Industrial Transformation and Opportunities**





## Disclaimers Regarding the Use of This Report

This report was prepared by LiB Consulting (Thailand) Co., Ltd. on behalf of the Japan Bank for International Cooperation (JBIC). The information contained herein is provided for use at the reader's own judgment and discretion. While JBIC and the research contractor endeavor to ensure the accuracy of the information presented, neither party guarantees the accuracy or completeness of the contents. In the event that any loss or disadvantage is incurred by a user in connection with the information contained in this report, JBIC and the research contractor shall bear no liability whatsoever.



1. **To present the findings of our research on “Energy-Saving Potential in Thailand”**, covering three core areas from the final report
2. **To promote energy saving in Thailand** through three key stakeholders: technology providers, factories, and the public sector





**WHY: Why Energy Saving Now ?**



**WHAT: Target Industries and Common Challenges in Energy Saving**



**WHAT: Available Solutions Landscape**

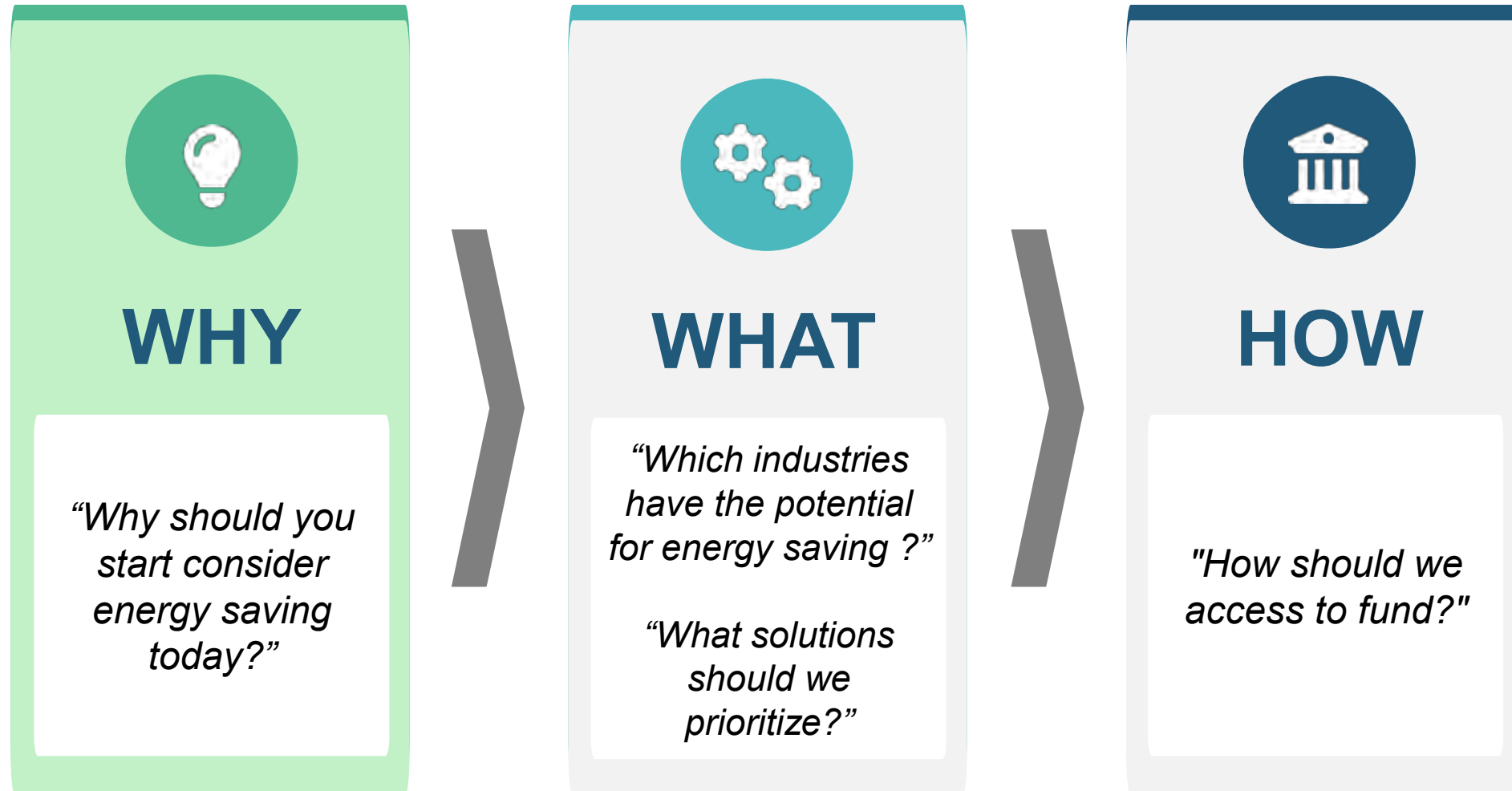


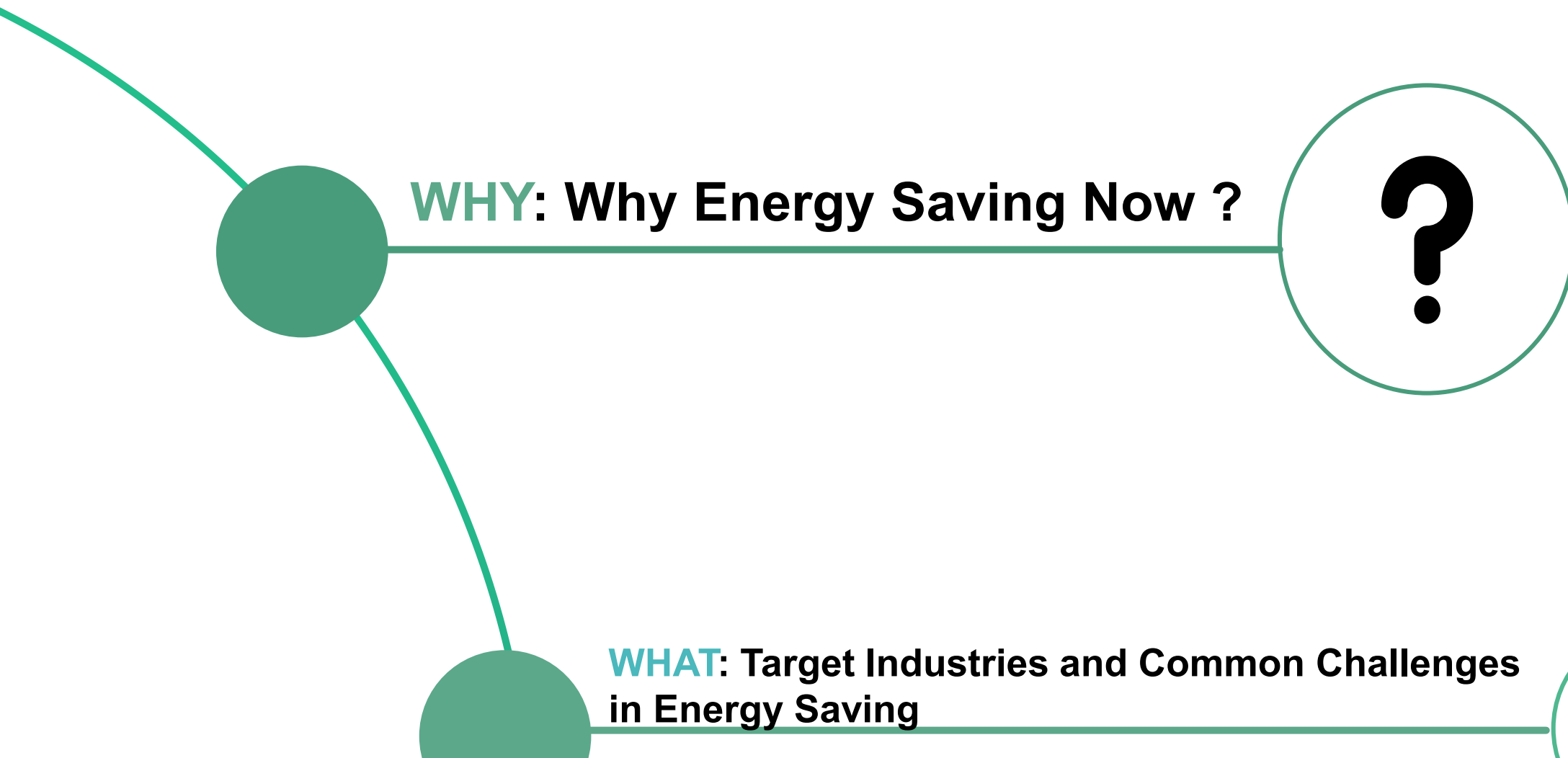
**HOW: Policy & Government Support**



**HOW: Japan-Thailand Collaboration**







**WHY: Why Energy Saving Now ?**



**WHAT: Target Industries and Common Challenges  
in Energy Saving**





## Why you should start consider energy saving today?

### 1 Energy costs are increasing



- **Volatility of energy prices** (e.g., the war in Iran and the closure of the Strait of Hormuz)
- **Limited energy sources choices**

→ Forced to be price takers and face escalating energy costs

### 2 Face regulatory penalties



- Draft Climate Change Act → **mandatory carbon pricing**
- Cross-border regulation (e.g., EU CBAM)

→ Face carbon and/or tariff penalties  
→ Reporting increases administration costs

### 3 Limited access to low-cost financing



- **New Thailand Green Taxonomy** → structurally incentivized to **only back verified green businesses**

→ Funding drops  
→ Credit lines are restricted  
→ High interest rate

### 4 Loss of customers & international clients



- Non-green firms have **low** customer reputation
- **Loss of supply chain customer**

→ Clients/customer change to more environment sustainable firms





Oil prices have increased as a result of the conflict surrounding the Strait of Hormuz



MoneyWatch

## Energy experts say gas prices are likely to remain high for months. Here's why.

By Megan Cerullo

June 2, 2026 / 5:52 PM EDT / CBS News

## Petrol hits highest price since start of Iran war

19 May 2026

**Oliver Smith**

Business reporter

Share



Save



 Add as preferred on Google







# AI to double data centre power and water consumption by 2030, UN researchers say

By Reuters

June 3, 2026 9:04 PM GMT+7 · Updated June 3, 2026



Search everything Ener

## Data centre electricity use surged in 2025, even with tightening bottlenecks driving a scramble for solutions

Press release  
16 April 2026



News • [Unlocking capital for sustainability](#)

# Resilient and ready: Thai businesses don't see climate action as a burden but a 'competitive edge'

A new Climate Change Act expected to introduce mandatory reporting and reshape the nation's business landscape will accelerate Thai companies' push to decarbonise and stay competitive, says UOB Thailand sustainability chief Ch...



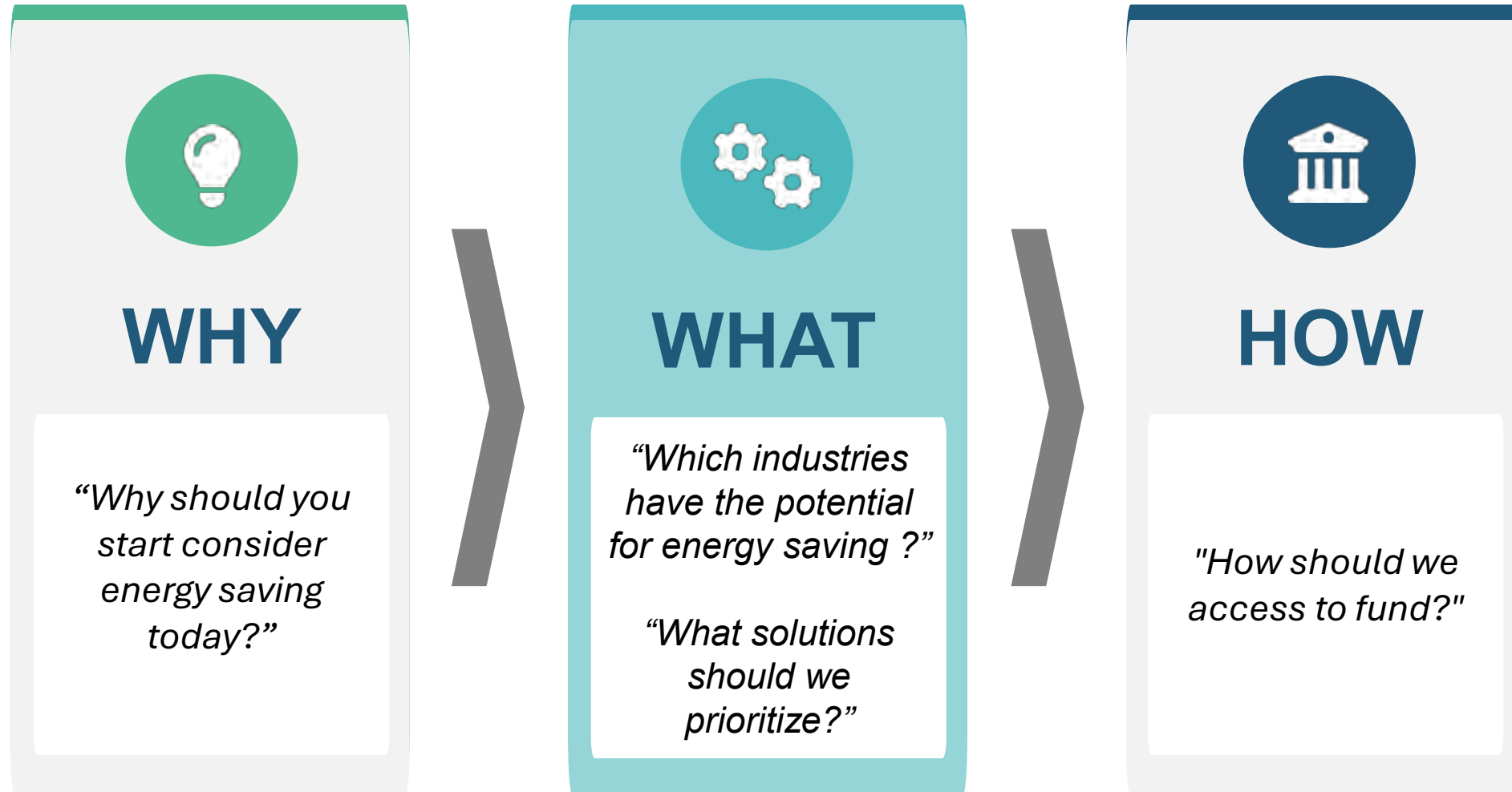
- News ▾
- Business ▾
- Life ▾
- Health & Wellness
- Women of the nation
- The Journey ▾
- VDO ▾
- THE OPINION ▾
- Thailand ▾
- SustainNation



## Thailand pushes ahead: First Climate Change Act proposed to Cabinet

TUESDAY, NOVEMBER 25, 2025 | Wirassanan Tuengtin 3 minute read

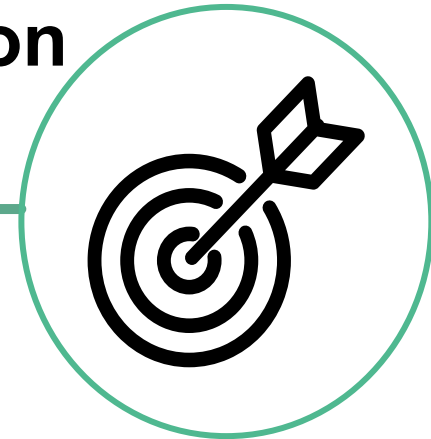








## **WHAT:** Target Industries and Common Challenges in Energy Saving



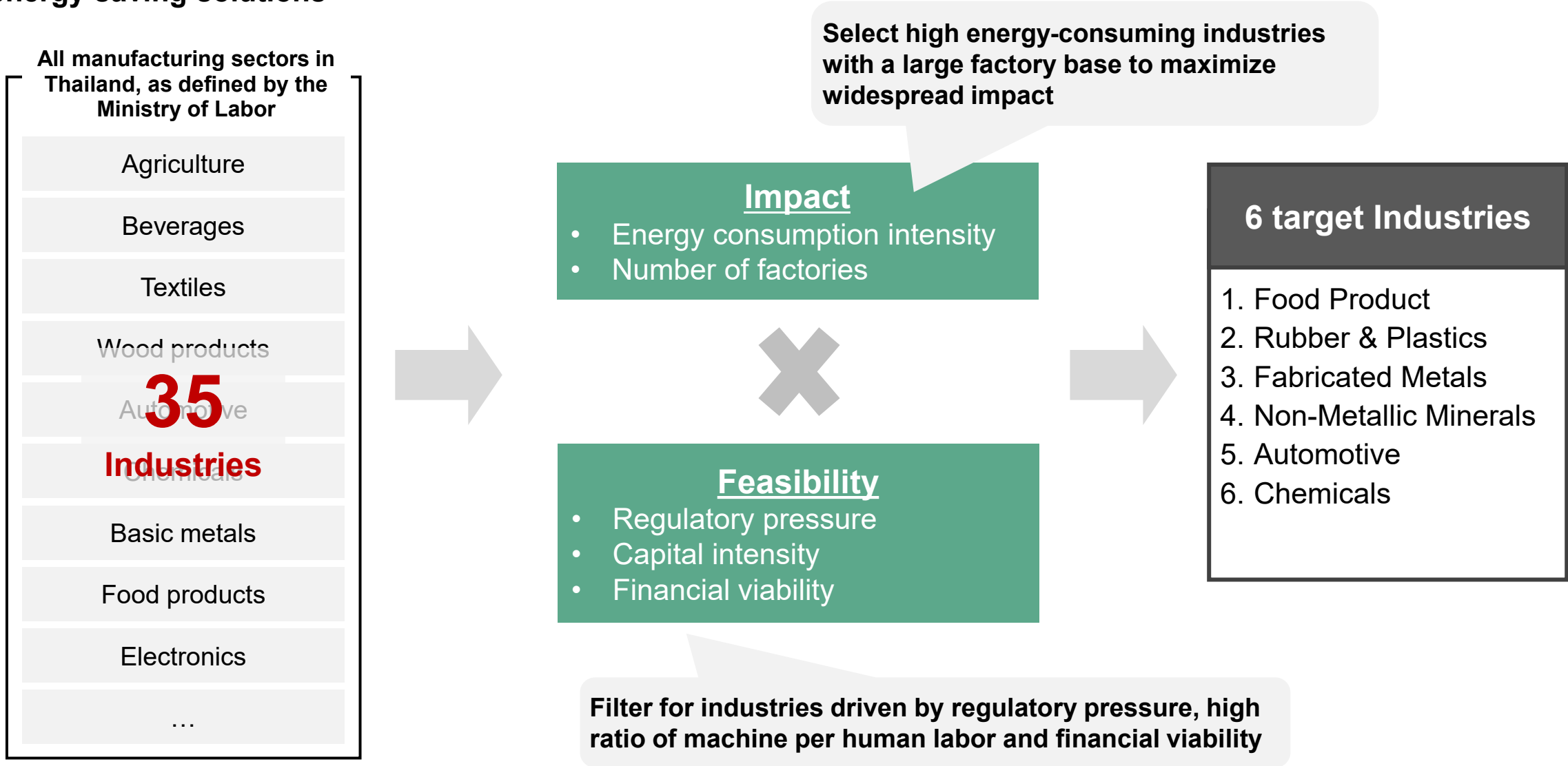
- A** Target Industries
- B** Energy Cost Saving and Carbon Footprint Reduction Potential
- C** Common Challenges in Energy Saving

## **WHAT:** Available Solutions Landscape





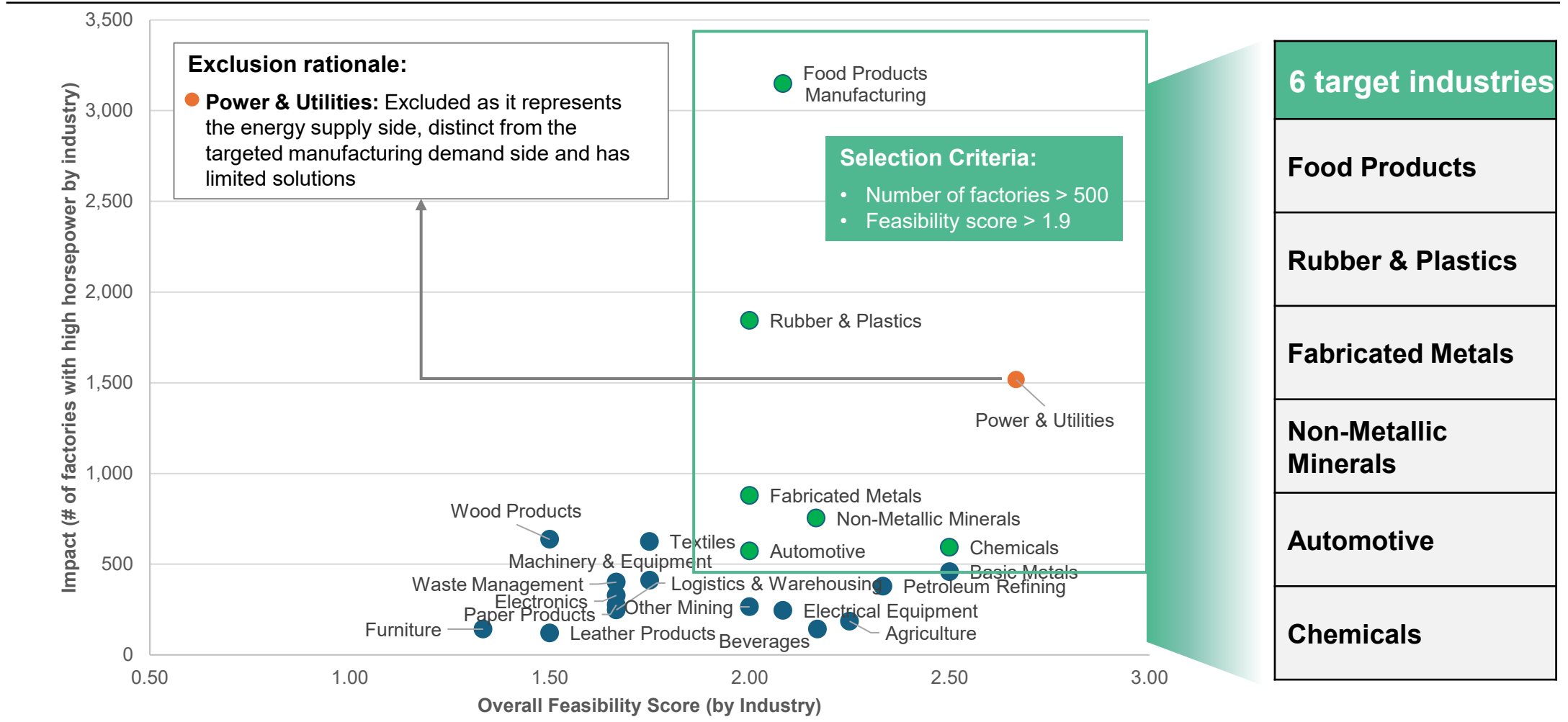
## Filtering Thailand’s 35 manufacturing sectors through impact and feasibility criteria to identify high-potential sectors for energy-saving solutions





Industries in Thailand positioned in the upper-right quadrant are the ones that should start investing in energy-saving solution now

Summary of target industry

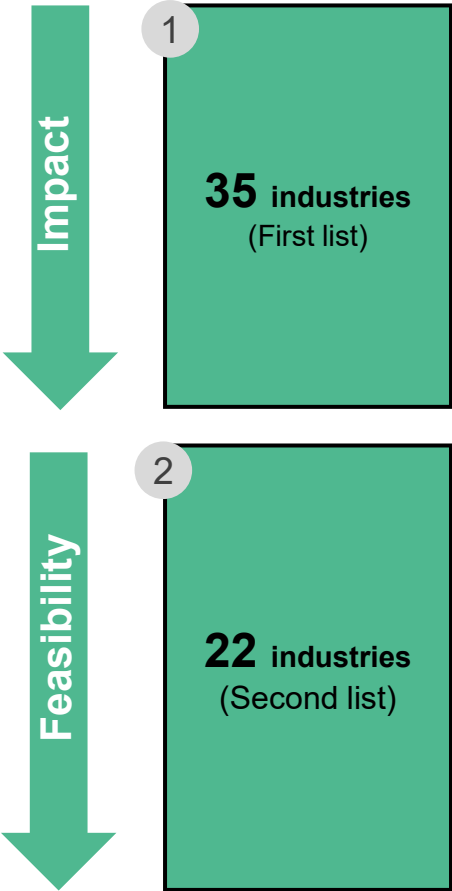






Prioritizing 35 industries down to the top 6 through impact x feasibility evaluation

Industry screening process



Set 5 levels of horsepower ranges using a percentile distribution

Unit: # of factories

| Industry                                       | Level 1         | Level 2                 | Level 3                  | Level 4                  | Level 5          |
|------------------------------------------------|-----------------|-------------------------|--------------------------|--------------------------|------------------|
| Percentile of horsepower of machine in factory | <20%<br>(HP <6) | 20 – 40%<br>(HP 6 - 13) | 40 – 60%<br>(HP 13 - 25) | 60 – 80%<br>(HP 25 - 61) | >80%<br>(HP >61) |
| Food Products                                  | 1,307           | 1,627                   | 1,822                    | 2,372                    | 3,122            |
| Rubber & Plastics                              | 792             | 1,059                   | 1,704                    | 2,116                    | 1,858            |
| Power & Utilities                              | 9               | 7                       | 36                       | 49                       | 1,526            |
| ...                                            | ...             | ...                     | ...                      | ...                      | ...              |

Criteria:  
• Cut-off by # of  
factories > 100

Unit: Score

22 industries (Second list)

| Industry          | Regulatory pressure |                 |                               | Capital intensity | Financial viability |                         | Total score (AVG) |
|-------------------|---------------------|-----------------|-------------------------------|-------------------|---------------------|-------------------------|-------------------|
|                   | CCA*                | CBAM            |                               |                   | Revenue             | Operating profit margin |                   |
|                   |                     | Industry impact | Export out of Thailand impact |                   |                     |                         |                   |
| Food Products     | 2                   | 1               | 2                             | 3                 | 2                   | 1                       | 2.08              |
| Rubber & Plastics | 2                   | 1               | 3                             | 3                 | 2                   | 2                       | 2.00              |
| Power & Utilities | 3                   | 3               | 1                             | 3                 | 2                   | 3                       | 2.67              |
| ...               | ...                 | ...             | ...                           | ...               | ...                 | ...                     |                   |

3

6 target industries

Remark: The Feasibility score is a proprietary metric developed by the research team based on three core dimensions (Regulatory pressure, Capital intensity, and Financial viability)

## Total number of factories categorized by 5 horsepower levels

| TSIC | Industry                                              | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
|------|-------------------------------------------------------|---------|---------|---------|---------|---------|
| 10   | <b>Food Products</b>                                  | 1370    | 1627    | 1822    | 2372    | 3122    |
| 22   | <b>Rubber &amp; Plastics</b>                          | 792     | 1059    | 1704    | 2116    | 1858    |
| 35   | Power & Utilities                                     | 9       | 7       | 36      | 49      | 1526    |
| 25   | <b>Fabricated Metals (except Machinery/Equipment)</b> | 1798    | 1848    | 1670    | 1350    | 881     |
| 23   | <b>Non-Metallic Minerals</b>                          | 1032    | 2242    | 1661    | 824     | 746     |
| 16   | Wood Products (except Furniture)                      | 689     | 663     | 636     | 733     | 645     |
| 13   | Textiles                                              | 280     | 266     | 297     | 297     | 608     |
| 20   | <b>Chemicals</b>                                      | 574     | 619     | 469     | 485     | 595     |
| 29   | <b>Automotive</b>                                     | 225     | 277     | 321     | 372     | 573     |
| 24   | Basic Metals                                          | 145     | 220     | 212     | 278     | 455     |
| 38   | Waste Management                                      | 511     | 567     | 658     | 552     | 418     |
| 28   | Machinery & Equipment                                 | 578     | 747     | 660     | 593     | 416     |
| 19   | Petroleum Refining                                    | 24      | 21      | 140     | 634     | 411     |
| 26   | Electronics                                           | 180     | 147     | 110     | 152     | 333     |
| 17   | Paper Products                                        | 359     | 304     | 266     | 260     | 278     |
| 8    | Other Mining                                          | 85      | 1068    | 1610    | 1515    | 259     |
| 52   | Logistics & Warehousing                               | 315     | 339     | 323     | 323     | 245     |
| 27   | Electrical Equipment                                  | 258     | 254     | 258     | 292     | 245     |
| 1    | Agriculture (hunting and others)                      | 94      | 219     | 404     | 404     | 186     |
| 11   | Beverages                                             | 95      | 85      | 78      | 121     | 147     |
| 31   | Furniture                                             | 530     | 451     | 311     | 257     | 143     |
| 15   | Leather Products                                      | 72      | 94      | 90      | 116     | 120     |
| 32   | Other Manufacturing                                   | 267     | 206     | 152     | 112     | 98      |
| 36   | Water Utilities                                       | 9       | 25      | 34      | 51      | 86      |
| 21   | Pharmaceuticals                                       | 79      | 70      | 58      | 75      | 81      |
| 30   | Other Transport Equipment                             | 78      | 73      | 84      | 84      | 76      |
| 14   | Wearing Apparel                                       | 480     | 176     | 141     | 87      | 67      |
| 2    | Agriculture (Forestry & Logging)                      | 20      | 23      | 17      | 39      | 49      |
| 37   | Sewerage                                              | 16      | 22      | 28      | 32      | 42      |
| 33   | Machinery Services                                    | 1555    | 1050    | 450     | 152     | 37      |
| 18   | Printing & Media                                      | 12      | 32      | 45      | 38      | 20      |
| 12   | Tobacco Products                                      | 5       | 16      | 14      | 17      | 10      |
| 46   | Wholesale Trade (except motor vehicle)                | 26      | 10      | 7       | 5       | 5       |
| 39   | Environmental Services                                | 1       | 5       | 3       | 5       | 3       |
| 9    | Mining Services                                       | 6       | 4       | 2       | -       | -       |

**Cut-off:**  
Total number of  
factories > 100

TSIC = The 2-digit code in the TSIC system represents the "Division" level. It is used to classify economic activities into broad industry groups

Source: DIW

## Feasibility scorecard by industry

| TSIC | Industry                                                          | Regulatory pressure |      |   |                             | Capital intensity | Financial viability |                         |                             | Total (average) |
|------|-------------------------------------------------------------------|---------------------|------|---|-----------------------------|-------------------|---------------------|-------------------------|-----------------------------|-----------------|
|      |                                                                   | *CCA Impact         | CBAM |   | Total (regulatory pressure) |                   | Revenue             | Operating profit margin | Total (financial viability) |                 |
| 35   | Power & Utilities                                                 | 3                   | 3    | 1 | 2.50                        | 3                 | 2                   | 3                       | 2.5                         | 2.67            |
| 20   | <b>Chemicals</b>                                                  | 3                   | 3    | 3 | 3.00                        | 3                 | 3                   | 1                       | 2.0                         | 2.50            |
| 23   | <b>Non-Metallic Mineral</b>                                       | 3                   | 3    | 1 | 2.50                        | 2                 | 2                   | 1                       | 1.5                         | 2.17            |
| 24   | Basic Metals                                                      | 3                   | 3    | 3 | 3.00                        | 3                 | 2                   | 2                       | 2.0                         | 2.50            |
| 19   | Petroleum Refining                                                | 3                   | 1    | 3 | 2.50                        | 3                 | 2                   | 1                       | 1.5                         | 2.33            |
| 11   | Beverages                                                         | 2                   | 1    | 1 | 1.50                        | 3                 | 2                   | 1                       | 1.5                         | 2.17            |
| 10   | <b>Food Products</b>                                              | 2                   | 1    | 2 | 1.75                        | 3                 | 2                   | 3                       | 2.5                         | 2.08            |
| 1    | Agriculture                                                       | 2                   | 1    | 2 | 1.75                        | 3                 | 2                   | 2                       | 2.0                         | 2.25            |
| 25   | <b>Fabricated Metal Products (except Machinery and Equipment)</b> | 2                   | 2    | 2 | 2.00                        | 2                 | 3                   | 1                       | 2.0                         | 2.00            |
| 8    | Other mining                                                      | 2                   | 1    | 1 | 1.50                        | 3                 | 2                   | 1                       | 1.5                         | 2.00            |
| 27   | Electrical Equipment                                              | 1                   | 2    | 3 | 1.75                        | 2                 | 3                   | 1                       | 2.0                         | 2.08            |
| 29   | <b>Automotive</b>                                                 | 2                   | 2    | 2 | 2.00                        | 2                 | 2                   | 1                       | 1.5                         | 2.00            |
| 22   | Rubber and Plastics                                               | 2                   | 1    | 3 | 2.00                        | 2                 | 2                   | 1                       | 1.5                         | 2.00            |
| 17   | Paper Products                                                    | 2                   | 1    | 1 | 1.50                        | 2                 | 2                   | 1                       | 1.5                         | 1.67            |
| 13   | Textiles                                                          | 2                   | 1    | 2 | 1.75                        | 2                 | 2                   | 1                       | 1.5                         | 1.75            |
| 52   | Logistics & Warehousing                                           | 3                   | 1    | 1 | 2.00                        | 2                 | 2                   | 1                       | 1.5                         | 1.67            |
| 26   | Electronic                                                        | 1                   | 1    | 3 | 1.50                        | 2                 | 1                   | 1                       | 1.0                         | 1.67            |
| 38   | Waste management                                                  | 2                   | 1    | 1 | 1.50                        | 2                 | 2                   | 1                       | 1.5                         | 1.67            |
| 28   | Machinery and Equipment                                           | 1                   | 2    | 3 | 1.75                        | 2                 | 2                   | 1                       | 1.5                         | 1.75            |
| 16   | Wood Products (except Furniture)                                  | 1                   | 1    | 1 | 1.00                        | 2                 | 2                   | 2                       | 2.0                         | 1.50            |
| 15   | Leather Products                                                  | 1                   | 1    | 1 | 1.00                        | 2                 | 2                   | 2                       | 2.0                         | 1.50            |
| 31   | Furniture                                                         | 1                   | 1    | 1 | 1.00                        | 1                 | 1                   | 2                       | 1.5                         | 1.33            |

1. Regulatory Pressure = Evaluate the impact of existing and upcoming regulations that compel industries to adopt energy-saving measures

2. Capital intensity = Assess the horsepower of machine registered in factory / number of employee

3. Financial Viability = Analyze the sector's financial capacity to invest, considering key metrics such as average revenue trends, operating profit margins

Source: DIW, DBD and SET



Feasibility evaluation criteria

| Criteria                                                                                      |                                           | Score 3                                                                                                                                                                                                                     | Score 2                                                                                                                                                                                                                                                     | Score 1                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Regulatory pressure                                                                           | Climate Change Act Impact                 | High Risk (Hard-to-Abate)<br><i>High Scope 1 emitters subject to direct ETS obligations and carbon taxation</i><br><i>First wave of mandatory compliance; significant CAPEX burden for production technology transition</i> | Moderate Risk (Value Chain Exposure)<br><i>Primarily Scope 2–3 emitters; pressured to adopt MRV systems and disclose carbon data to trade partners</i><br><i>Financial impact largely indirect: elevated electricity, raw material, and logistics costs</i> | Low Risk (Limited Near-Term Exposure)<br><i>Low direct emissions; not currently targeted by climate regulation in the short-to-medium term</i><br><i>Limited financial impact; opportunity to gain competitive advantage through green labelling or carbon credits</i> |
|                                                                                               | CBAM Impact (EU Carbon Border Adjustment) | Directly Subject to CBAM<br><i>Currently subject to CBAM enforcement</i>                                                                                                                                                    | Potential CBAM Exposure<br><i>Products likely to be covered by CBAM in the near future</i>                                                                                                                                                                  | Low / No CBAM Risk<br><i>Low likelihood of CBAM coverage or no clear regulatory trend identified</i>                                                                                                                                                                   |
|                                                                                               | Export Impact (Trade Exposure Risk)       | EU/US Export Oriented<br><i>EU and US markets account for ≥25% of total exports within the respective industry</i>                                                                                                          | Regional Export<br><i>EU and US markets account for 15–24% of industry exports; Asian markets account for ≥45%; and global export share is ≥1%</i>                                                                                                          | Domestic / Marginal Exporter<br><i>Global export share is &lt;1% of total exports (small-scale industry with limited participation in international trade)</i>                                                                                                         |
| Capital intensity<br>(Horsepower / number of employee)<br><br>High = Higher output per worker |                                           | Labor intensity ratio at or above the 80th percentile                                                                                                                                                                       | Labor intensity ratio between 40 – 79th percentile                                                                                                                                                                                                          | Labor intensity ratio below the 40th percentile                                                                                                                                                                                                                        |
| Financial viability                                                                           | Revenue (Median value)                    | > 5,000 MTHB                                                                                                                                                                                                                | 1,000 – 5,000 MTHB                                                                                                                                                                                                                                          | < 1,000 MTHB                                                                                                                                                                                                                                                           |
|                                                                                               | Operating Profit Margin (Median value)    | > 10%                                                                                                                                                                                                                       | 5 - 10%                                                                                                                                                                                                                                                     | < 5%                                                                                                                                                                                                                                                                   |

Calculation of Capital Intensity is based on 2025 DIW data.  
Revenue and Operating Profit Margin are based on median value of industry in large size (L) defined by DBD (Size L: annual revenue ≥ 500 million baht per DBD DataWarehouse classification)





There are 6 potential target industries: Food Products, Rubber & Plastics, Fabricated Metals, Non-Metallic Minerals, Chemicals, and Automotive

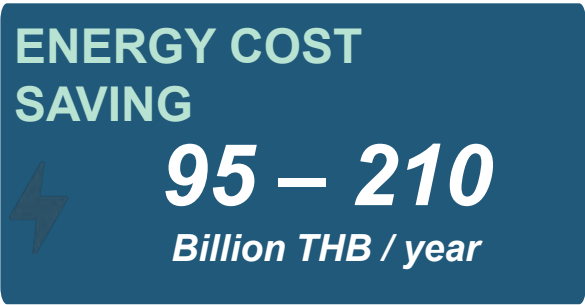
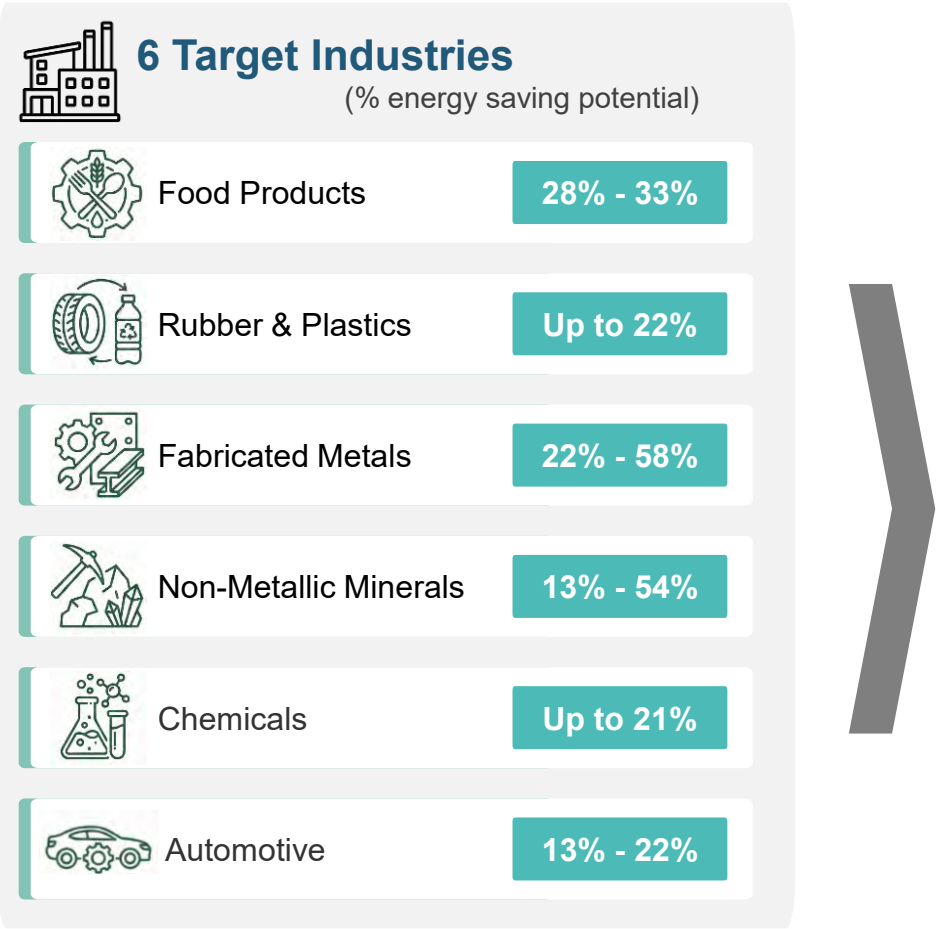
|  | Target Industry       | Detail                                                                                               | Examples of Products                                                                                                           |
|--|-----------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
|  | Food Products         | Processing of agricultural, livestock, and fishery products into food                                | <ul style="list-style-type: none"><li>• Canned food, frozen seafood, tapioca starch, sugar, seasonings</li></ul>               |
|  | Rubber & Plastics     | Manufacturing of semi-finished or finished products from natural/synthetic rubber and plastic resins | <ul style="list-style-type: none"><li>• Tires, automotive rubber parts, PVC pipes, plastic packaging, gloves</li></ul>         |
|  | Fabricated Metals     | Transformation of metal into intermediate or end products (excluding machinery and equipment)        | <ul style="list-style-type: none"><li>• Metal cans, structural metal products, tanks, hardware, metal containers</li></ul>     |
|  | Non-Metallic Minerals | Production of construction materials from mined minerals using high-thermal processes                | <ul style="list-style-type: none"><li>• Cement, ready-mixed concrete, ceramics, glass sheets, bricks</li></ul>                 |
|  | Chemicals             | Transformation of organic and inorganic raw materials into chemical substances or products           | <ul style="list-style-type: none"><li>• Fertilizers, plastic resins, industrial gases, paints, soap &amp; detergents</li></ul> |
|  | Automotive            | Assembly of motor vehicles and engines, including manufacturing of vehicle bodies and trailers       | <ul style="list-style-type: none"><li>• Passenger cars, pickup trucks, motorcycles, combustion engines, chassis</li></ul>      |



# Energy Cost Saving and Carbon Footprint Reduction Potential

A  
B  
C

By 2037, annual energy cost savings are estimated at 95 – 210 billion THB with carbon footprint reduction potential from energy saving being around 14.4 – 39.8 MtCO<sub>2</sub>e



Calculate by

### Calculation process:

- **Energy Reduction:** 2023 baseline consumption × estimated saving rate (%) by industry and fuel type
- **Cost Savings:** Energy saved × 2025 projected price (THB/ktoe)
- **Carbon Reduction:** Energy saved × 2025 GHG emission factors

Energy saving potential definition: The quantitative estimation of energy savings achieved through conservation measures, disaggregated by **target industry sector** (e.g., food processing, steel, cement) and **energy carrier type** (e.g., electricity, thermal/steam, fossil fuel), used to assess the energy reduction potential across sectors



Drawing on our experience, we identified three key barriers to energy saving adoption: limited in-house expertise, low perceived ROI, and high upfront capital costs

## Common Challenges

1

### "Don't Know How"

Limited in-house expertise and no prior energy audit experience to establish reliable baseline consumption data



## Solutions



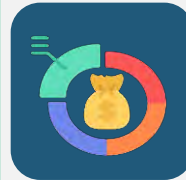
### Grow talents

Expert-led technical support and capacity-building programs to grow the pool of qualified energy and sustainability professionals



### Comprehensive evaluation

Measure and identify gaps to prioritize investment initiatives that has highest ROI in short-term for quick-win



### Streamlined Financing

Streamlined approvals and clear eligibility criteria to ensure financing reaches intended targets

2

### "Not Worth It"

Investment costs are perceived as too high relative to uncertain long-term financial returns, dampening ROI confidence

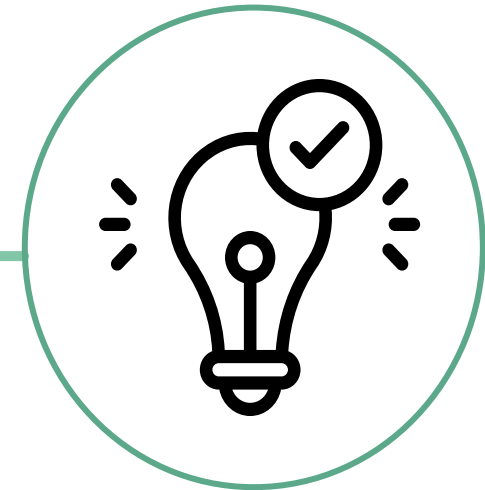
3

### "Can't Access Funds"

Significant financing barriers and insufficient collateral, disproportionately affecting SMEs in industrial sectors



**WHAT: Available Solutions  
Landscape**



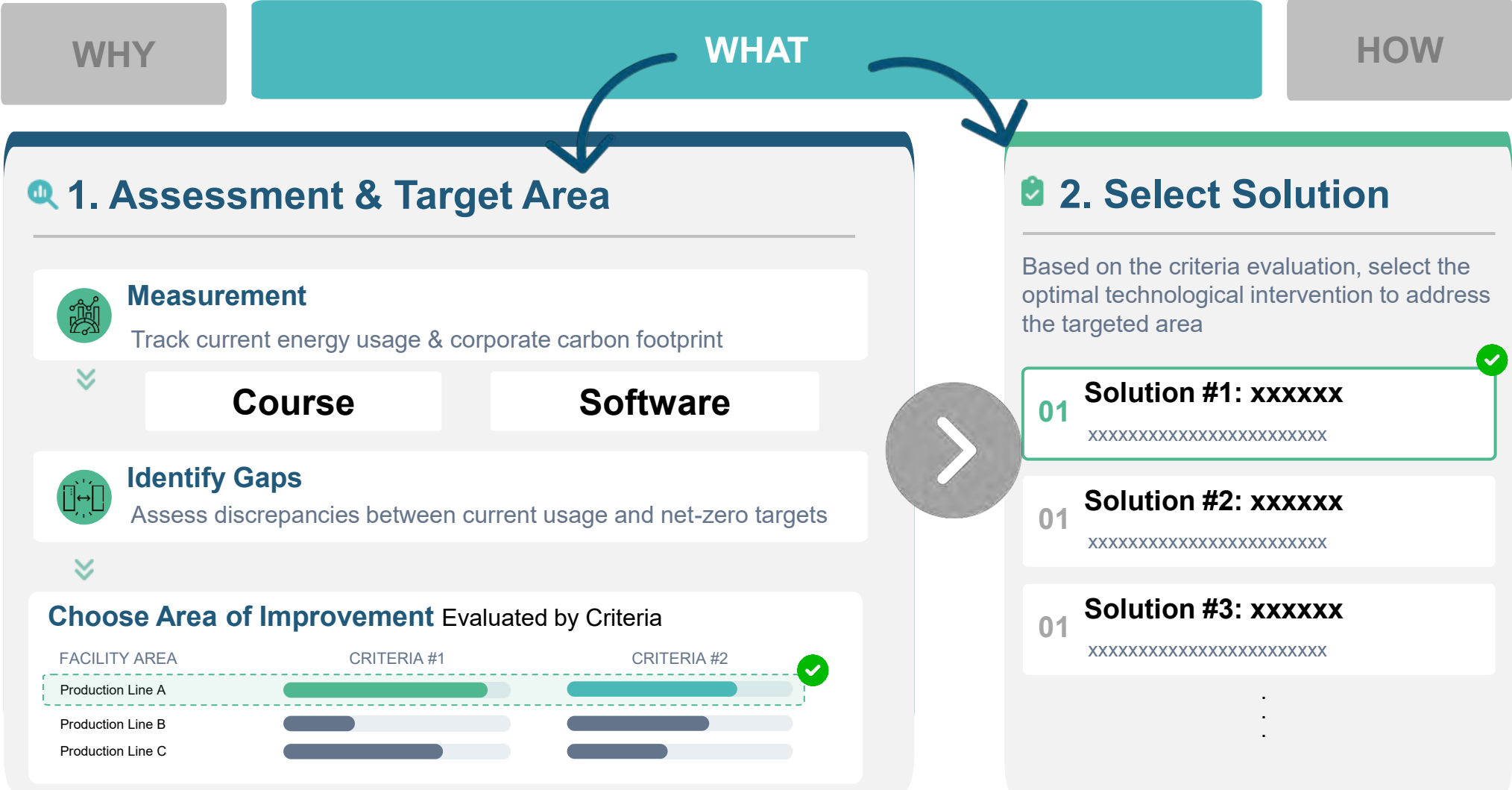
**HOW: Policy & Government Support**







We can start by measuring our organization's energy consumption and carbon footprint, then identify the most urgent areas to close existing gaps





**You cannot cut what you cannot see: visualizing equipment operation showed ULVAC when it could safely stop its pumps, cutting factory-equipment power by 23%**



**ULVAC's vacuum pumps ran 24 hours a day, 365 days a year, drawing power continuously, yet their usage was never fully visualized, so no one knew when they could safely be switched off**

OMRON's i-BELT turned live site data into insight with IoT and AI, pinpointing exactly when vacuum pumps could be stopped without affecting productivity



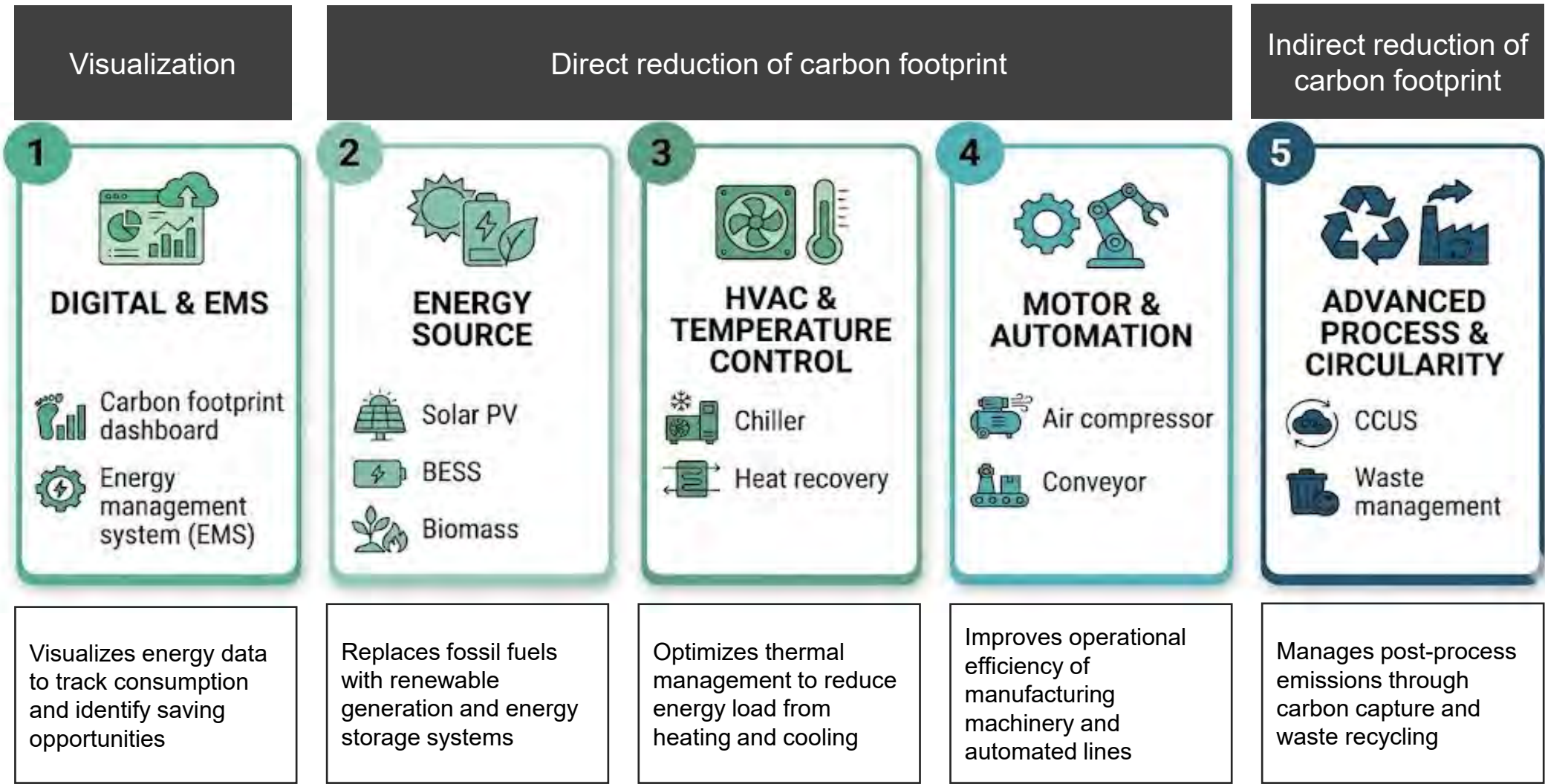
**Making the hidden waste visible cut power across all factory equipment by 23% and exhaust-system power by 66%, saving roughly 2.5 million yen per pump each year**

Source: OMRON i-BELT customer reference, ULVAC Inc. (energy efficiency control)

Copyright © Japan Bank for International Cooperation All Rights Reserved.



Solutions are organized into 5 categories along the decarbonization value chain, covering energy savings from both cost and volume perspectives

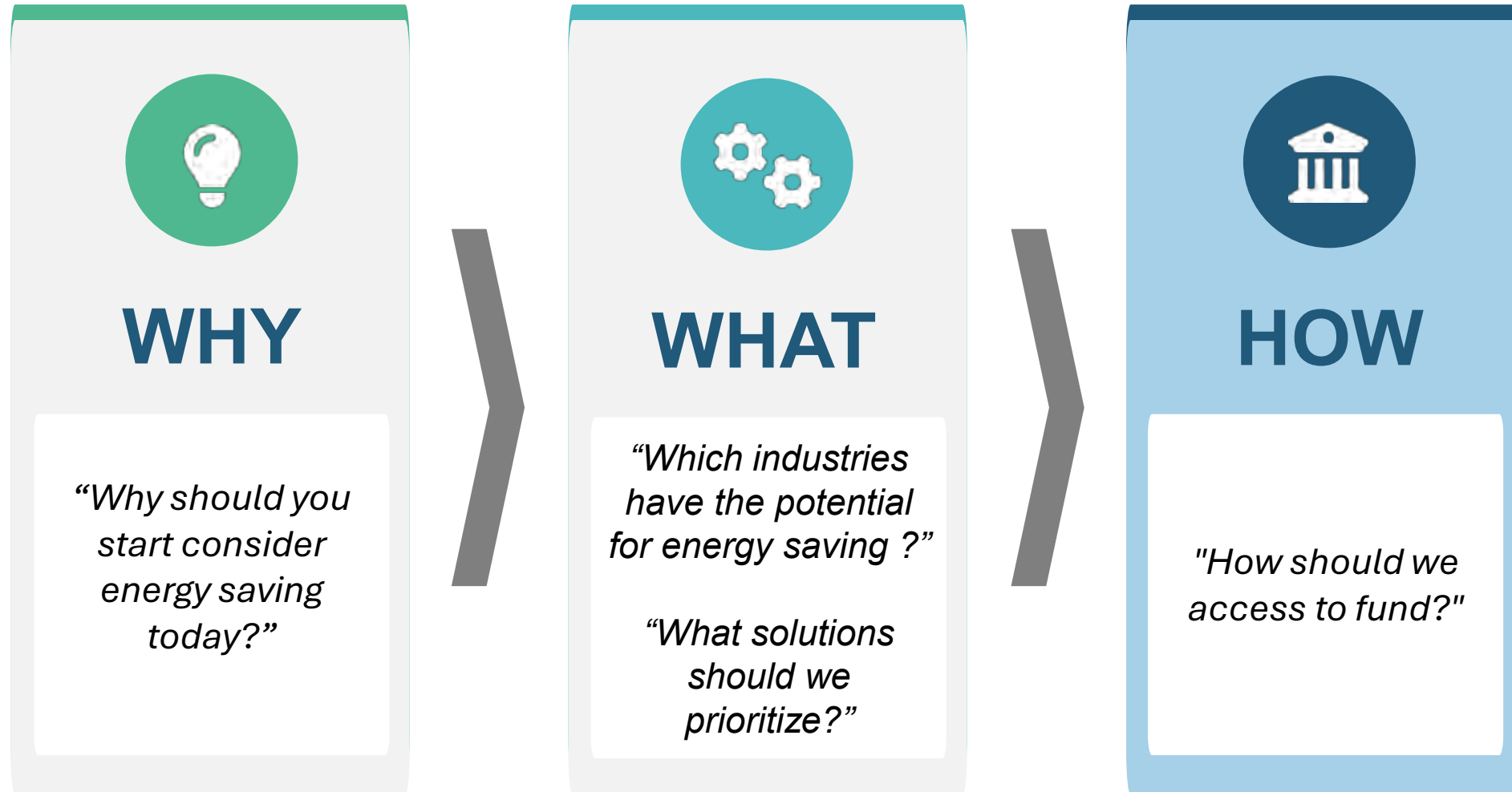


The solution framework is synthesized from IEA, IRENA, UNIDO and NEDO

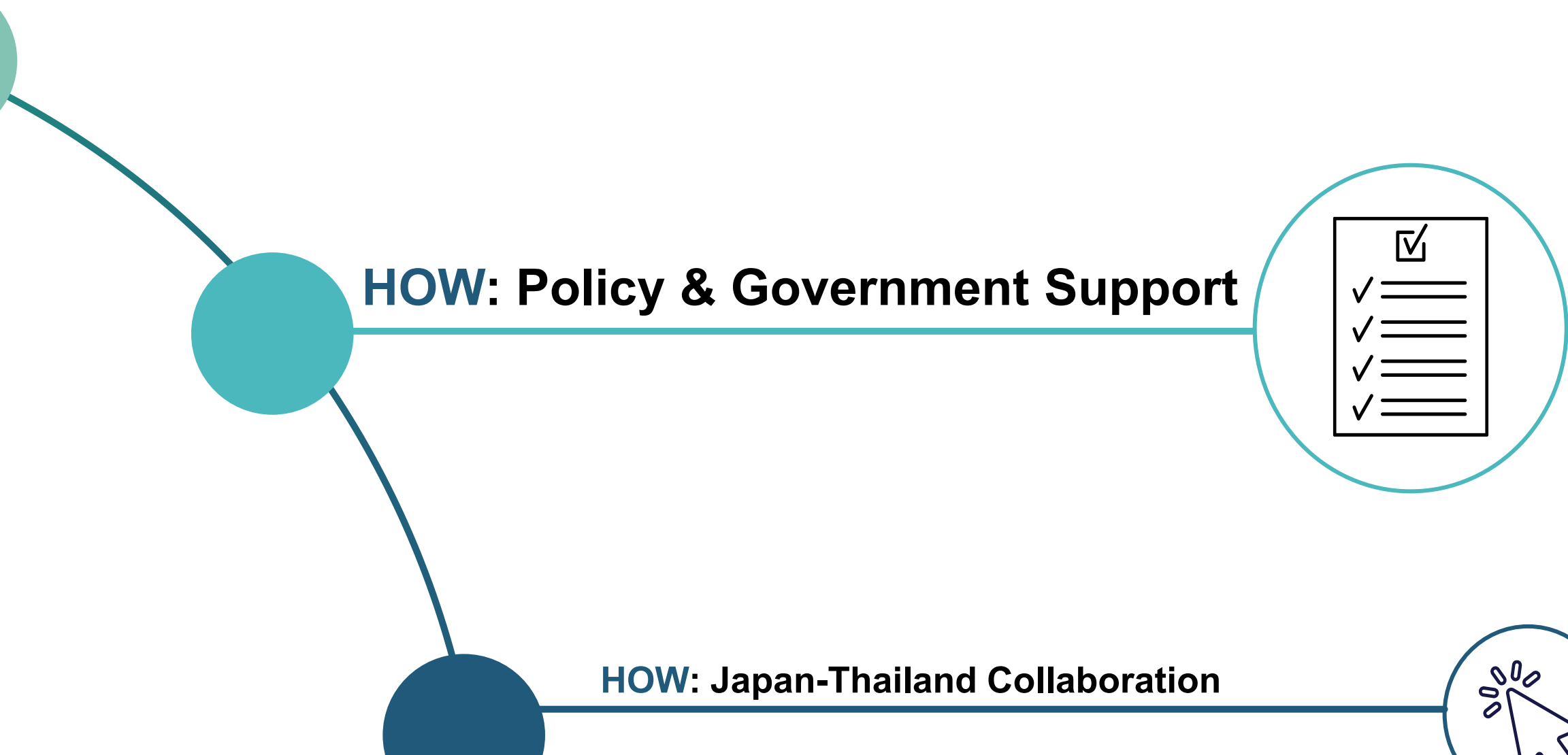
CCUS: Carbon Capture, Utilization and Storage



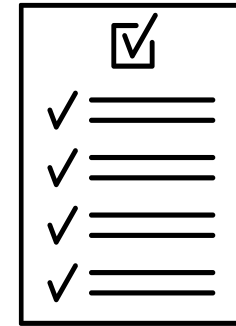
|  | Target Industry       | Example of Solutions                                                                                     |                                                                                              |                                                                                                         |
|--|-----------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
|  | Food Products         | <b>MVR Evaporator</b><br><i>0.02-0.05 kWh/L (vapor recompression)</i>                                    | <b>Condensing Fire-Tube Steam Boiler</b><br><i>Thermal efficiency <math>\geq 95\%</math></i> | <b>Magnetic-Bearing Centrifugal Chiller</b><br><i>IPLV <math>\leq 0.45</math> kW/RT (AHRI 550/590)</i>  |
|  | Rubber & Plastics     | <b>All-Electric Injection Molding Machine</b><br><i>30-60% less energy vs hydraulic</i>                  | <b>Servo-Hydraulic Hybrid Molding Machine</b>                                                | <b>Premium-Efficiency Motor + VSD Pump</b><br><i>IE4/IE5 class (IEC 60034-30-2)</i>                     |
|  | Fabricated Metals     | <b>High-Frequency Induction Furnace</b>                                                                  | <b>Electric Arc Furnace (EAF)</b>                                                            | <b>VSD Rotary-Screw Air Compressor</b><br><i><math>\leq 6.0</math> kW/(m<sup>3</sup>/min), ISO 1217</i> |
|  | Non-Metallic Minerals | <b>Vertical Roller Mill (VRM)</b><br><i><math>\leq 32</math> kWh/t vs <math>\sim 40</math> ball mill</i> | <b>Waste-Heat Recovery Power Generation</b>                                                  | <b>Oxy-Fuel / Regenerative Burner Furnace</b><br><i>Glass &amp; ceramics kilns</i>                      |
|  | Chemicals             | <b>MVR / TVR Concentration Unit</b><br><i>Mechanical/Thermal Vapor Recompression</i>                     | <b>Waste-Heat Recovery</b>                                                                   | <b>Premium Motor + VSD on Pumps &amp; Fans</b><br><i>IE4/IE5 + drive (IEC 61800-9-2)</i>                |
|  | Automotive            | <b>Energy-Saving Paint Shop (Dry Scrubber)</b>                                                           | <b>Servo-Driven Industrial Robots</b>                                                        | <b>ISO 50001 Energy Management System</b><br><i>Plant FEMS / submetering</i>                            |







## HOW: Policy & Government Support



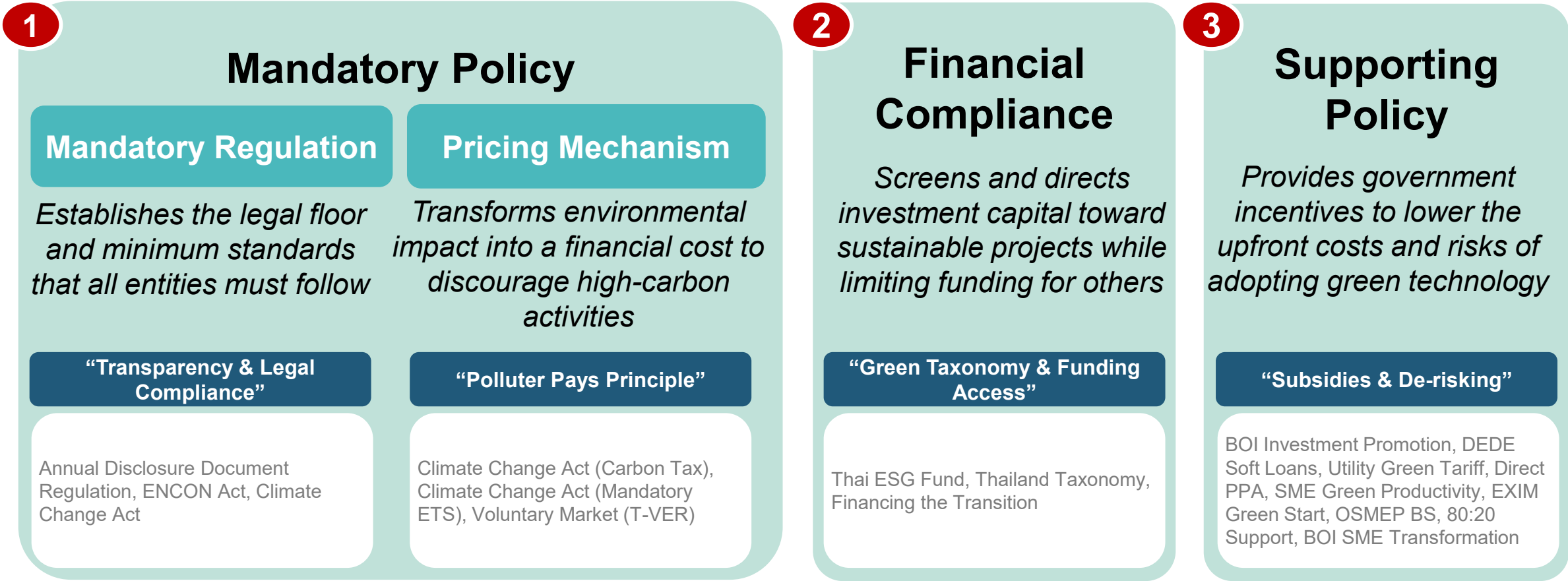
## HOW: Japan-Thailand Collaboration





About how to access to fund, we have multiple policies and framework that could support demand side to invest in energy saving related solutions

## The Policies and Regulations

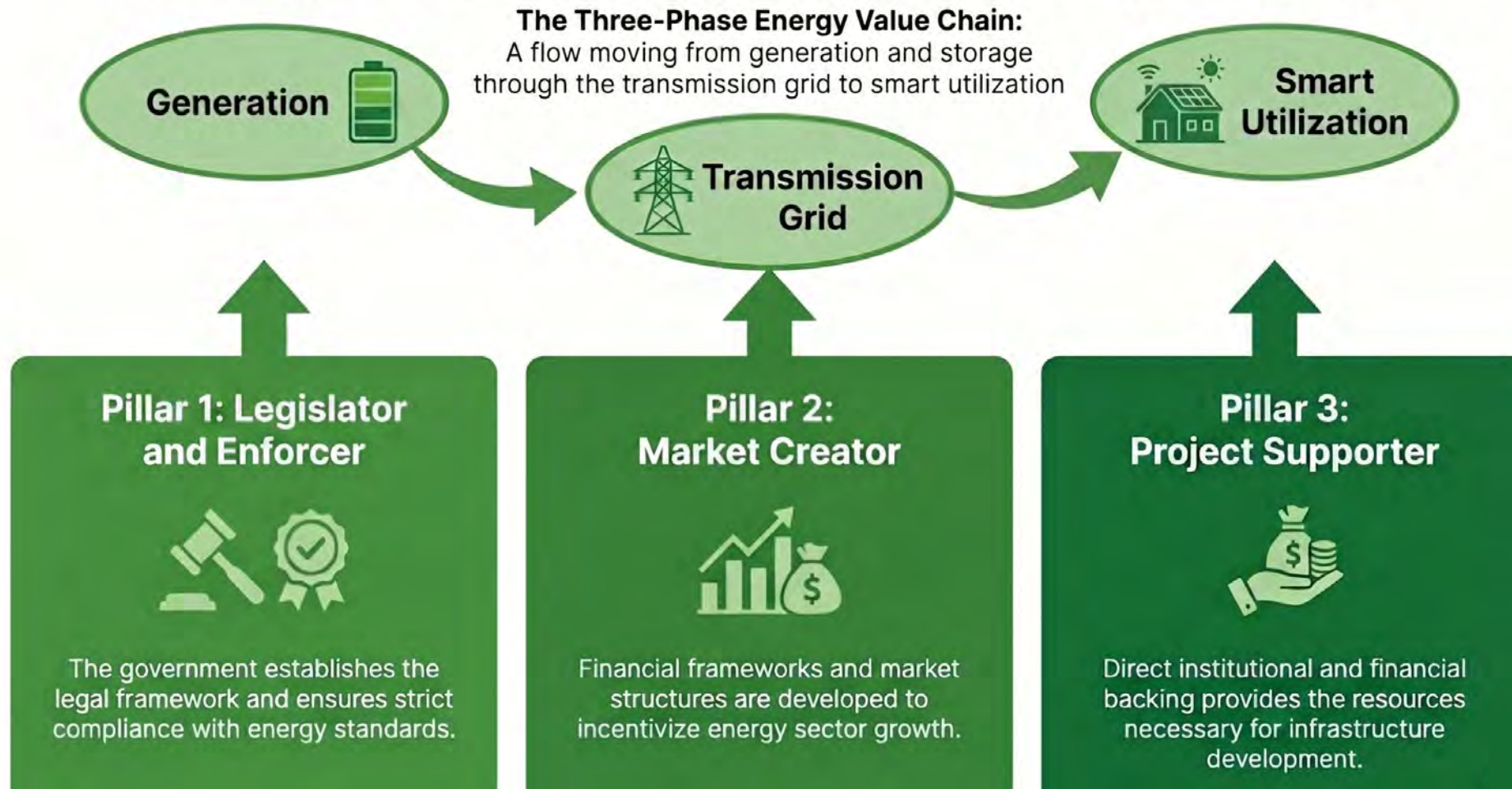


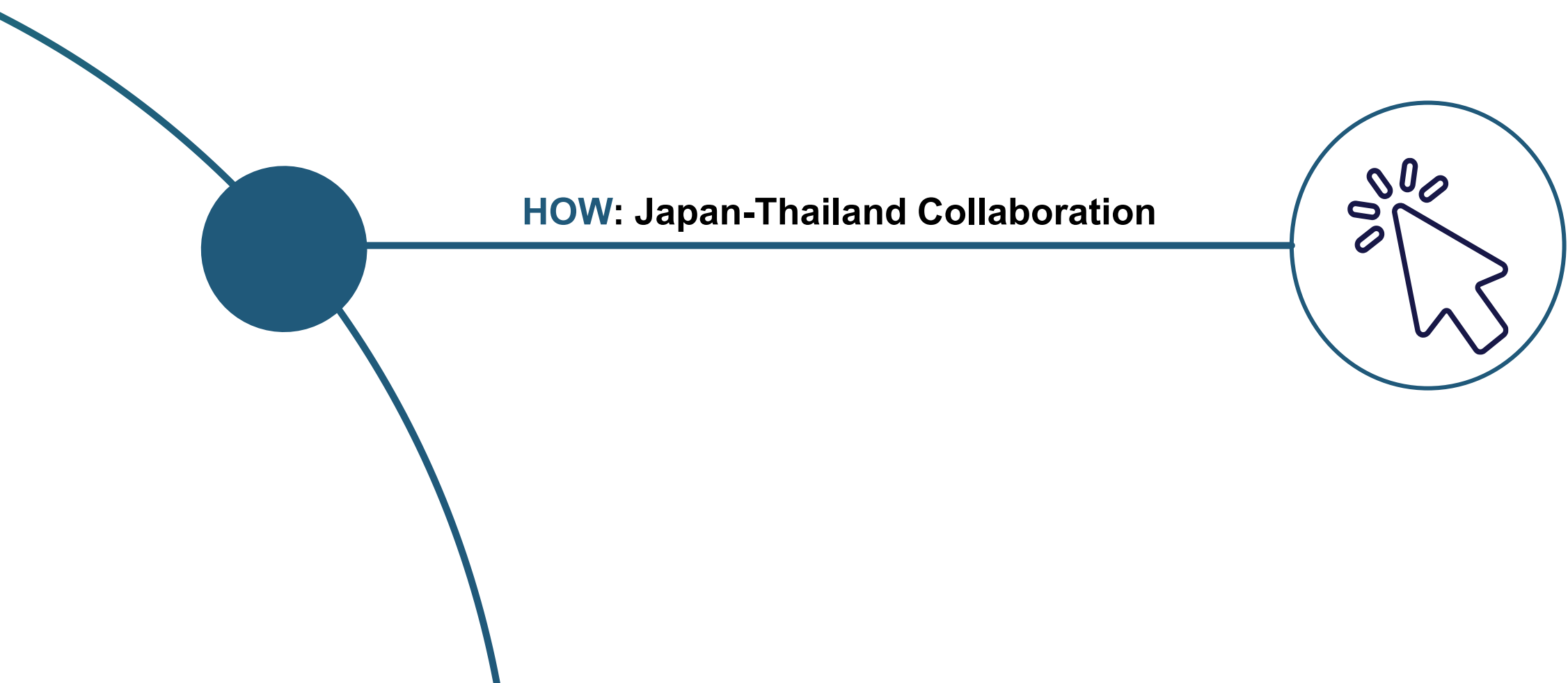


Government plays three core roles across the energy value chain As legislator, market creator, and project enabler from generation and transmission through to end use

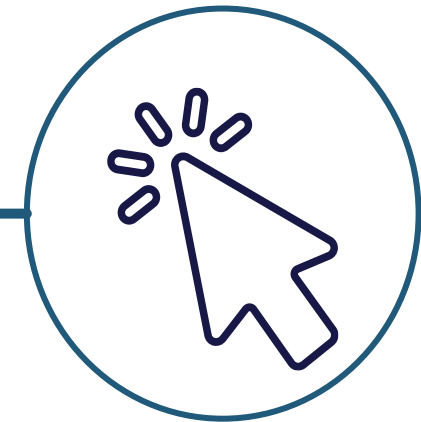
## The Sovereign Energy Infrastructure Framework

The energy value chain is driven by government-led sovereign infrastructure.





**HOW: Japan-Thailand Collaboration**







JAPAN



Development phase

THAILAND



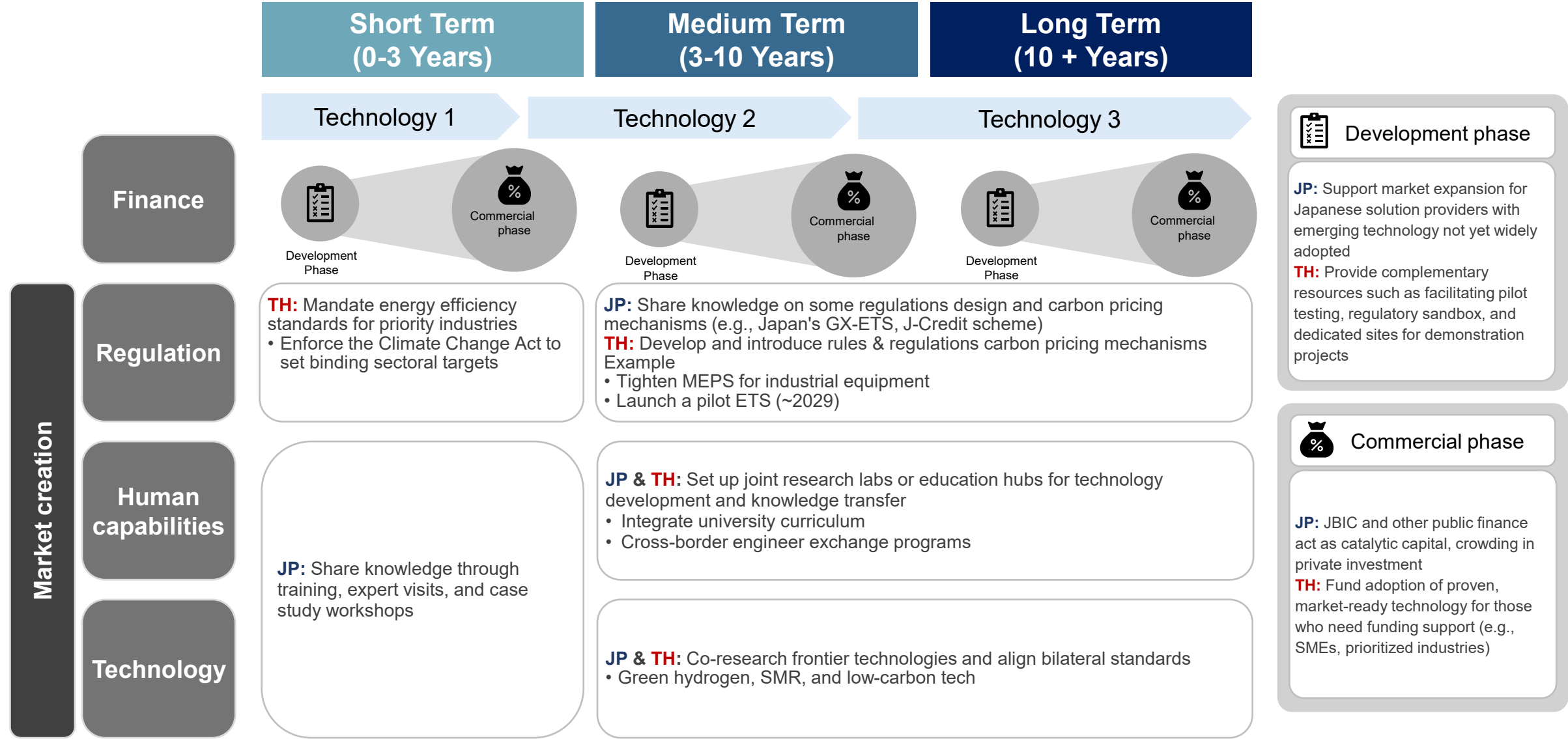
Commercial phase

ACHIEVING SELF-SUSTAINING MOMENTUM





## Bridging pilot-stage grants and commercial scale-up via market creation





**WHY:** Why Energy Saving Now ?



**WHAT:** Target Industries and Common Challenges in Energy Saving



**WHAT:** Available Solutions Landscape



**HOW:** Policy & Government Support



**HOW:** Japan-Thailand Collaboration





**The best time to act was yesterday.  
The second-best time is now.**

Early movers gain financial, competitive, and reputational advantages, while laggards will pay more in long-term operation & compliance costs, lose customers, and risk brand damage.

