



Operational Excellence Services

Decarbonization
Energy Optimization



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Access to Our Homepage

<https://www.jgc.com/en/business/epc/operation-maintenance/service/>

Energy Optimization

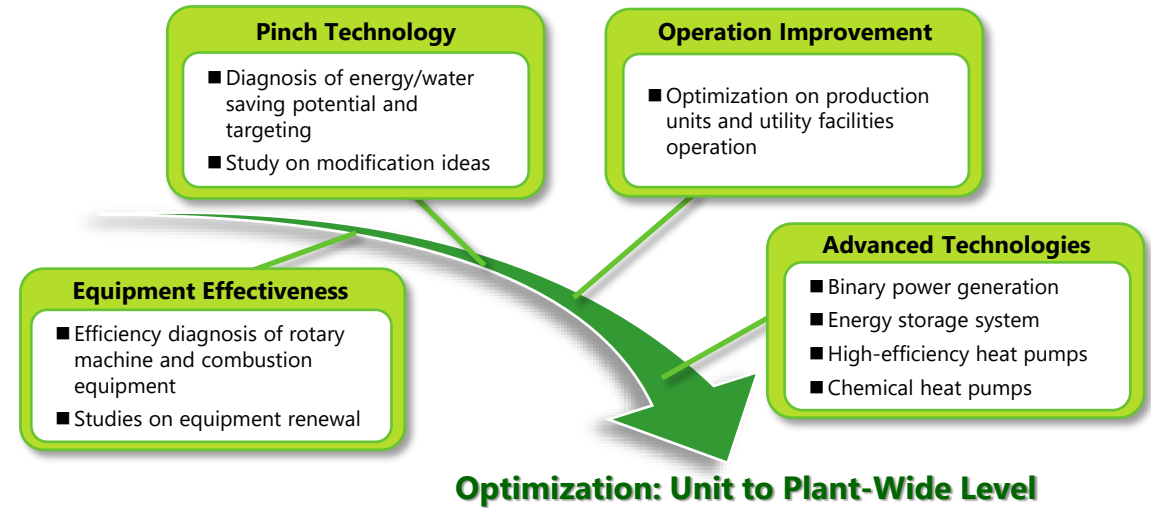
Do you have any of these issues?

- ☹️ **How to reduce energy consumption?**
- ☹️ **How to eliminate equipment bottlenecks?**
- ☹️ **What kind of equipment should be updated to improve efficiency?**

What is our service ?

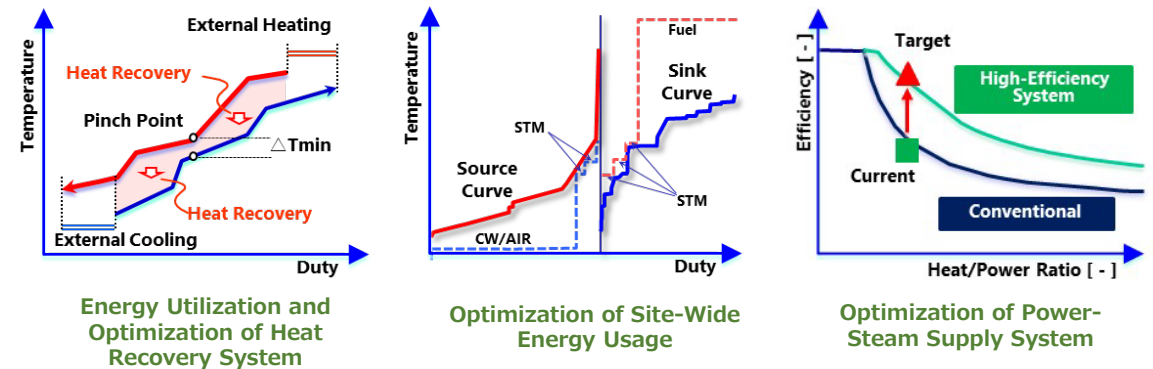
- **Equipment Effectiveness:** Diagnosis to identify the efficiency of existing facilities to be improved and suggestions for types of equipment to be modified.
- **Pinch Analysis:** Identify heat recovery target and create solutions such as heat recovery networks that balance the trade-off between investment costs and energy savings.
- **Operation Improvement:** Studies on unit operation and utility facilities modifications to improve energy efficiency.
- **Advanced Technology:** Studies and proposals on the introduction of high-efficiency equipment and new heat recovery technologies.

Our Approach

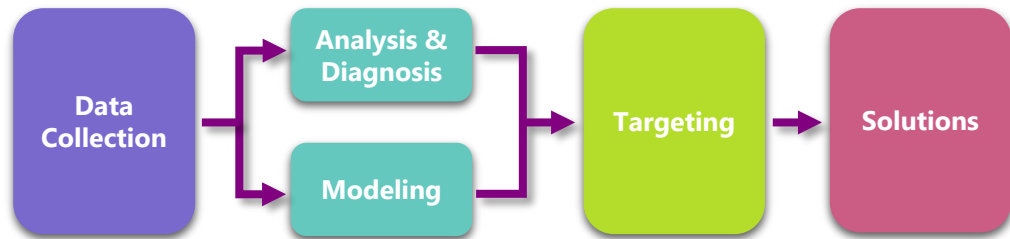


What is Pinch Analysis?

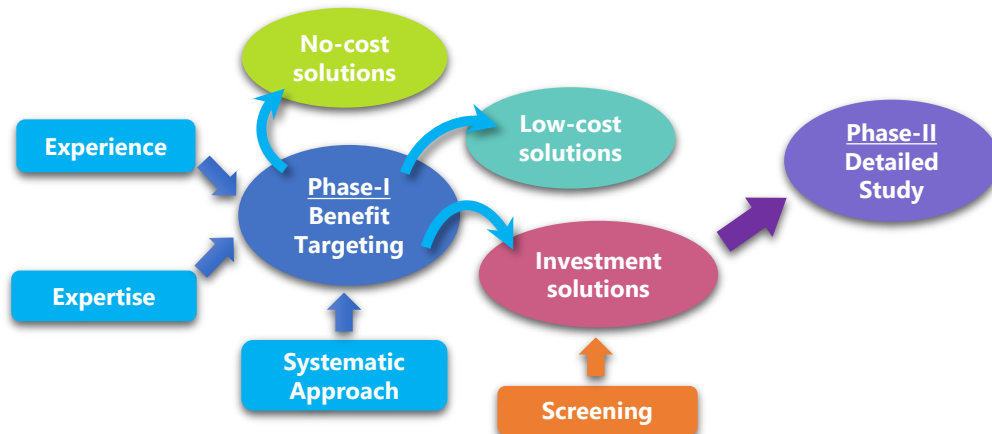
Systematic and Visualization Methods to Identify the Target



Workflow & Result



- Plant Data collection(Operating Data, Climate Data)
- Analysis and diagnosis
- Modeling for Pinch Analysis, and Targeting
- Prioritization of solutions into tree categories as Phase-I
- As Phase-II, detailed study to materialize the investment solutions proposed in Phase-I



Our Strengths

- The proven and successful experiences in executing similar consultancy services.
- Extensive technical knowledge and know-how for energy and water conservation.
- Qualified professionals.
- Collaboration between overseas EPC-capable group companies and out-sourcing for consultancy services.

Our Experiences

50+
Projects

Industry	Japan	Overseas
Petroleum Refinery	26	11
Petrochemical	6	4
Chemical	5	-
Steel	1	-
Total	38	15

- Contributed to over 50 projects in various phases (FS, Pre-FEED, FEED, EPC, Revamps) for Petroleum Refinery, Petrochemical, Chemicals, etc.
- We are certified by a national oil company as an energy consultant.