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# 부산광역시 생활폐기물 연료화 및 발전시설

Busan Metropolitan City Plant for Conversion of  
Household Wastes to Fuel and Power Plant



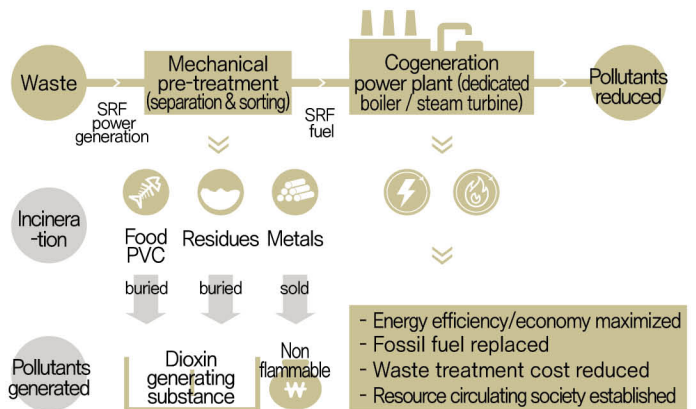
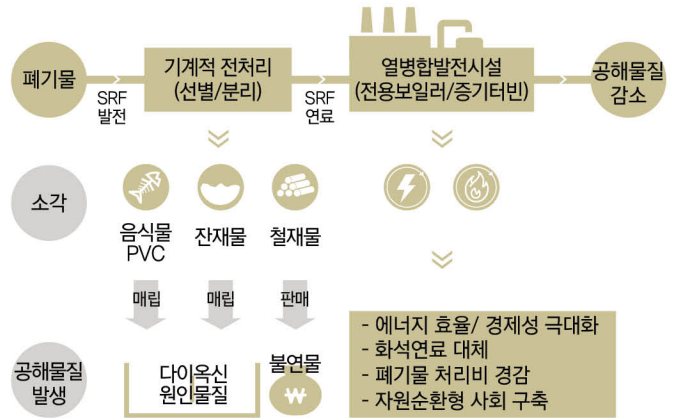
busan E&E (주) 부산E&E  
BUSAN Environment & Energy



## 사업개요 및 현황

### Business overview and status

사업시행자 Business executed by	주식회사 부산이앤이 Busan E&E Co.,Ltd.								
출자사 Invested by	(주)포스코(70%), (주)태연건설(30%) POSCO Co., Ltd.(70%), Taeyoung Construction Co., Ltd.(30%)								
주무관청 Jurisdiction	부산광역시 Busan metropolitan city								
사업관리 Business managed by	한국환경공단 Korea Environment Corporation								
사업내용 Business contents	<ul style="list-style-type: none"> <li>- 연료화: 기계적 전처리, SRF저장 및 이송설비(Fluff Type SRF 생산)</li> <li>▶ 시설용량: 폐기물 900톤/일, 16hr/일, 261일/년 가동</li> <li>- 발전: 외부 순환형 유동층 보일러 및 추기 복수식 터빈 (용량 24.8MW)</li> <li>▶ 시설용량: SRF 500톤/일, 24hr/일, 325일/년 가동</li> <li>- Conversion to fuel : Mechanical pre-treatment, SRF storage and conveyance equipment(Fluff type SRF production)</li> <li>▶ Facility capacity : Waste 900 tons/day, 16 hr/day, 261 days/year operated</li> <li>- Power generation : External circular type floating layer boiler and External circular type floating layer boiler and additional condensing turbine (capacity 24.8MW)</li> <li>▶ Facility capacity: Operated SRF 500 tons/day, 24hr/day, 325 days/year)</li> </ul>								
총사업비(경상) Total business cost (Ordinary)	<table border="0"> <tr> <td>2,456억원</td> <td>KRW245.6 billion</td> </tr> <tr> <td>- 자기자본 : 431억원</td> <td>- Equity capital : KRW43.1 billion</td> </tr> <tr> <td>- 타인자본 : 649억원</td> <td>- Borrowed capital : KRW64.9 billion</td> </tr> <tr> <td>- 재정지원금 : 1,376억원</td> <td>- Financial support : KRW137.6 billion</td> </tr> </table>	2,456억원	KRW245.6 billion	- 자기자본 : 431억원	- Equity capital : KRW43.1 billion	- 타인자본 : 649억원	- Borrowed capital : KRW64.9 billion	- 재정지원금 : 1,376억원	- Financial support : KRW137.6 billion
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공사기간 Construction period	2010. 10. 25 ~ 2013. 10. 7(35.4개월) Oct. 25, 2010 ~ Oct. 7, 2013 (35.4 months)								
운영기간 Operation period	준공 후 15년(BTO방식) 15 years after completion of construction (BTO method)								
처리현황 Treated status	<ul style="list-style-type: none"> <li>- 부산시 16개 구·군 중 8개 구 생활폐기물 반입·처리(폐목재는 부산 전역 반입·처리)</li> <li>- 부산시 생활폐기물 발생량의 약 55% 처리</li> <li>- Household wastes are admitted and treated from 8 gus out of 16 gus and gus in Busan metropolitan city. (Waste lumber are admitted and treated from all areas of Busan.)</li> <li>- About 55% of household wastes generated in Busan are treated.</li> </ul>								

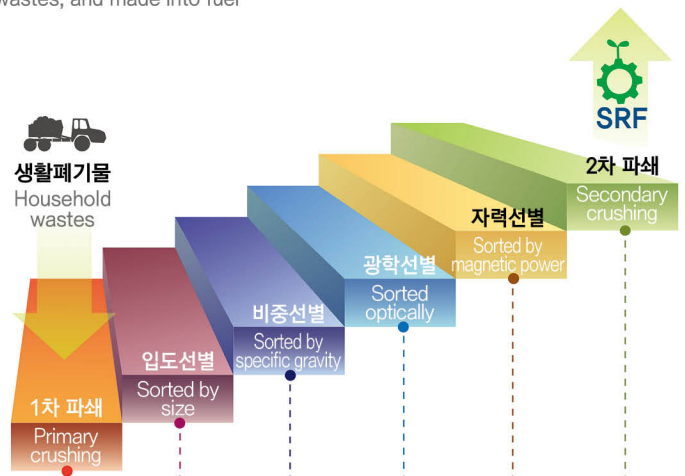


## SRF란?

### What is SRF all about?

### Solid Refuse Fuel

생활폐기물 중 가연성분만 선별하여 연료화로 만든 물질  
Substance that only inflammable components are separated from household wastes, and made into fuel



일정한 크기로 파쇄 Crushed to constant size	유기물, 유리 등 선별 Organic substance and glass etc are sorted	불연물 고수분 물질 (음식물 쓰레기, 등) 제거 Non-flammable substance with high water content (like food waste etc) removed	다이옥신 발생 물질 (PVC 등) 제거 Dioxin generating substances (like PVC etc) removed	재활용 물질 선별 (철금속, 알루미늄 등) 제거 Recyclable substance (like metal and aluminum etc) sorted	흡열적으로 연소할 수 있는 크기로 파쇄 Crushed to an efficiently combustible size
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## 자원순환 가동원리

### Resource circulation operation mechanism

매립되는 폐기물의 양을 줄이고 재활용이 가능한 최대한의 자원을 회수하여 에너지를 생산합니다.

This plant reduces the amount of buried wastes, and generates energy by restoring recyclable resources to maximum extent.

### SRF 발전사업 | SRF power generation business

소각, 매립되던 생활폐기물 중, 가연성 폐기물만 분리 선별 후 연료화 하여 전력을 생산하고, 그 과정에서 발생하는 열은 열 수요처(각종 산업시설 등)에 공급하는 신재생 에너지 사업

This business is a new & renewable energy business. In this business, only incineratable reclaimable household waste liquid, and inflammable wastes are separated and sorted, made into fuel, and used to generate electric power, and the heats generated in this course are supplied to demanding places like various industrial facilities etc.

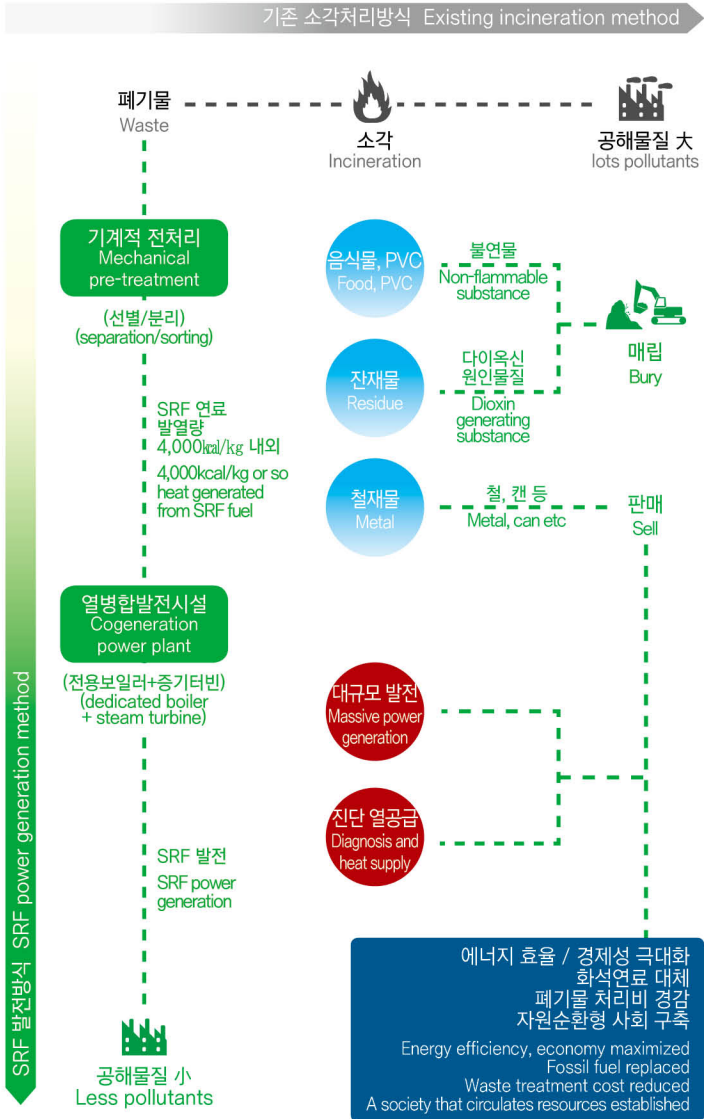
## SRF 발전시설의 장점

Advantages of SRF power plant

### 녹색자원 순환 에너지

Energy that circulates green resources

친환경 공정을 통해 생활폐기물을 연료로 변환하여 전력 생산  
Generates power by converting household wastes to fuel through eco-friendly process



## SRF의 가치

The Value of SRF

### 자원절약

Saving Resources

- 인간이 살아가면서 발생 시킨 쓰레기는 이미 매립할 땅이 사라지고, 환경오염 규제로 인해 처리가 어려운 상황입니다.
- 버려지는 쓰레기를 선별하여 연료화함으로써 고갈되는 화석연료를 대체할 수 있습니다.
- There are less and less lands to bury the wastes created by humans, and it is ever harder to treat wastes than ever before due to regulations on environmental pollution.
- We can sort out the wastes deserted, turn them into fuel, and eventually replace fossil fuel that will ever be depleted.

### 기업경쟁력 확보

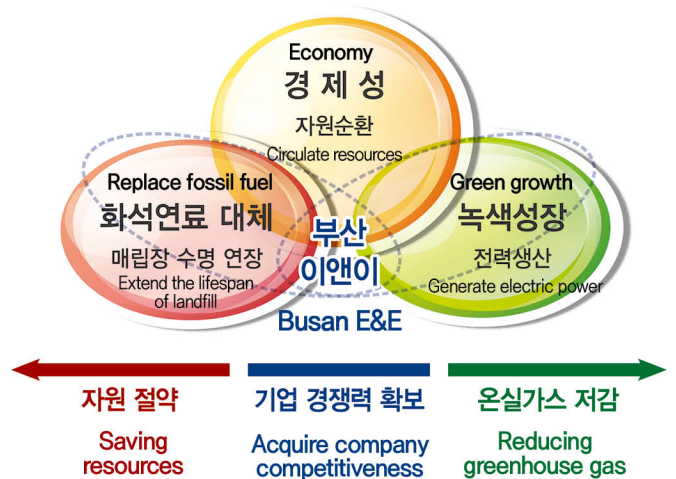
Acquiring company competitiveness

- 점차 사라져가는 화석연료의 비용은 상승하고, 이를 이용하여 에너지화 하는 것은 지양해야 합니다.
- 자원순환을 통하여 경제성을 확보하고, 국가발전에 기여한다면 그 가치는 무한합니다.
- The cost of fossil fuel that is approaching depletion little by little is growing, and in this trend, turning the fossil fuel into energy should be abstained from.
- Circulation of resources will offer economy, contribute to national development, and furthermore produce unlimited value.

### 온실가스 저감

Reducing greenhouse gas

- 신재생 산업을 통하여 온실가스를 줄인다면 친환경 사회로 나아가는 미래 지향적 방법입니다.
- By reducing greenhouse gas through new & renewable industry, the country will able to move toward an environment-friendly society, a future-oriented society.



## 사업장 전경

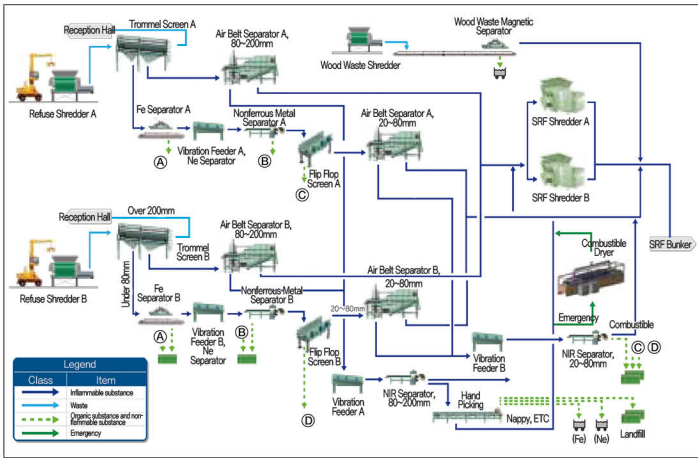
Business View





## 연료화 시설 계통도

System diagram for facility that converts to fuel



## 발전시설 계통도

System diagram for power generation facility

