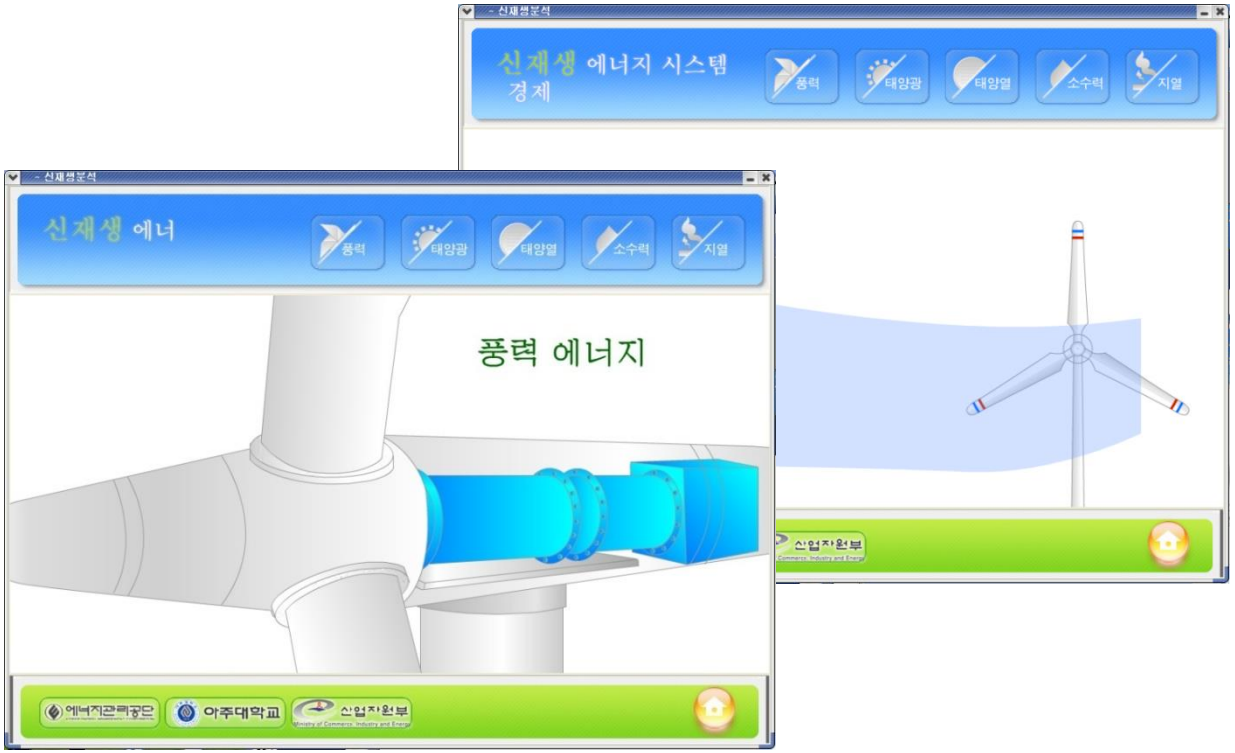
신·재생에너지 시스템 경제성 분석 프로그램 개발 및 적용방안 연구

아주대학교 에너지학과
김수덕
(suduk@ajou.ac.kr)

아주대학교 에너지학과

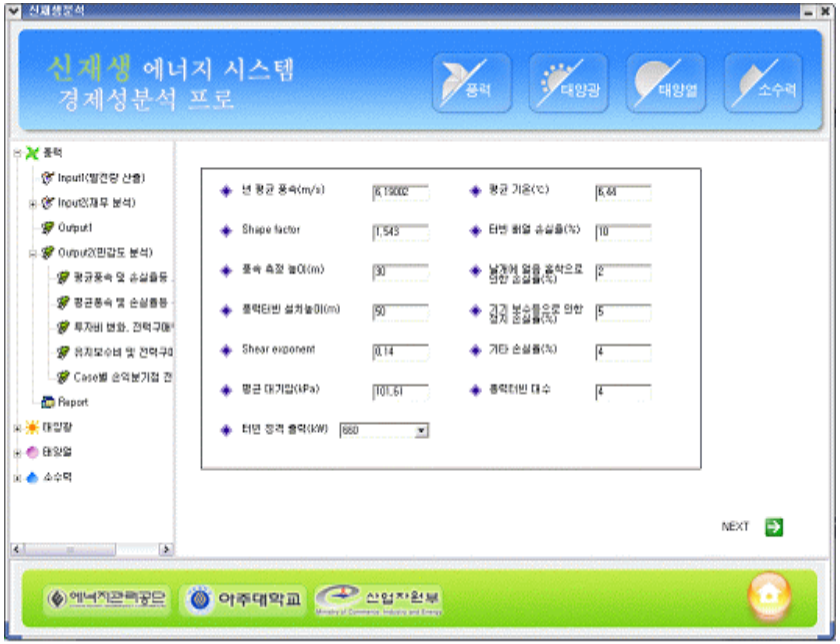
Renewable Energy System Economic Feasibility Test Programs

Wind (REVAP v0.9)

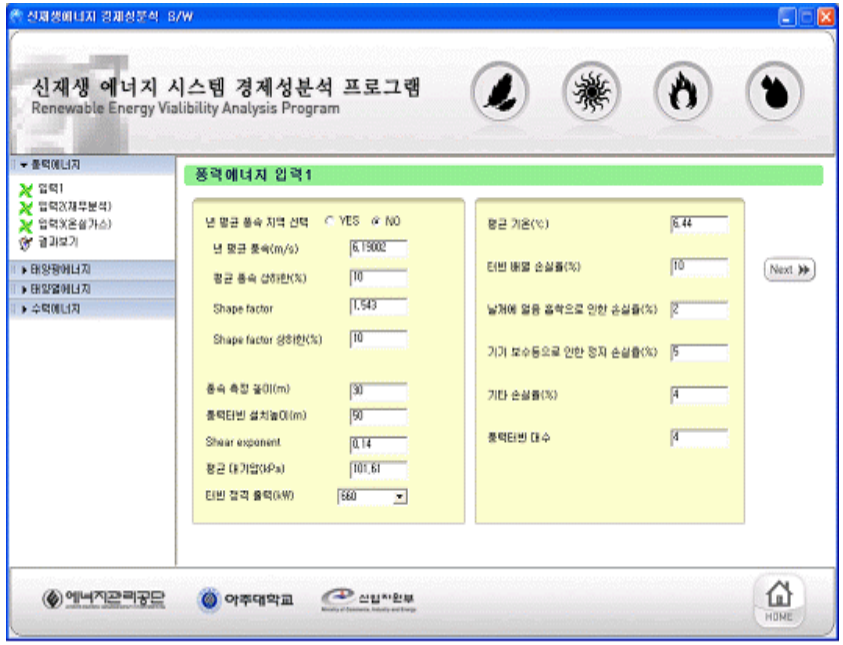


1차년도, 2차년도 프로그램 비교(1/10)

풍력시스템 발전량 산출 입력화면



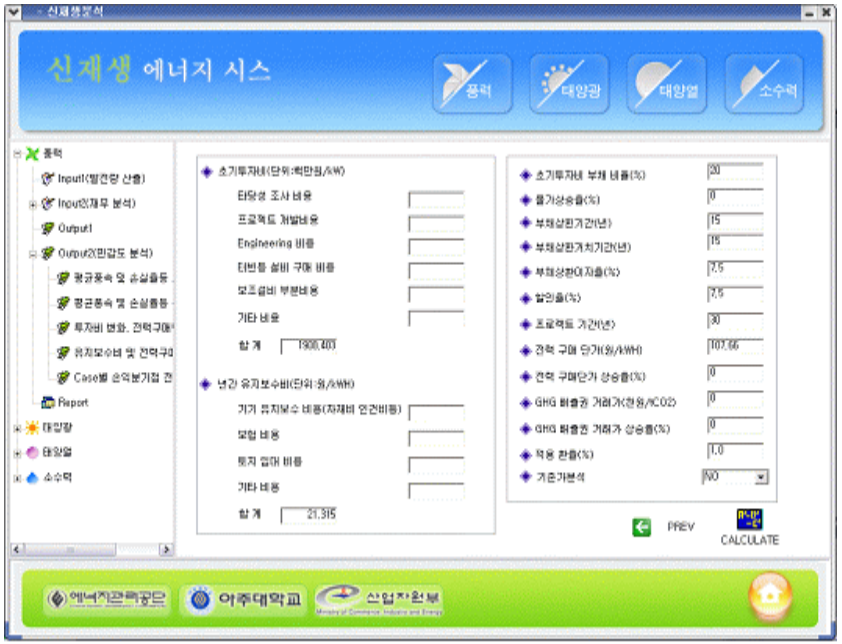
1차년도



2차년도

1차년도, 2차년도 프로그램 비교(2/10)

풍력시스템 재무 분석 입력화면



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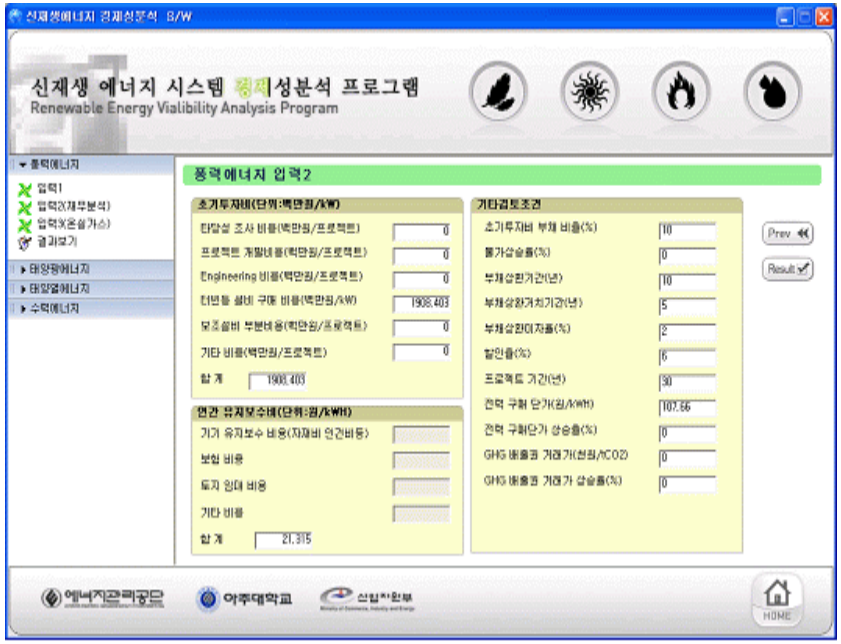
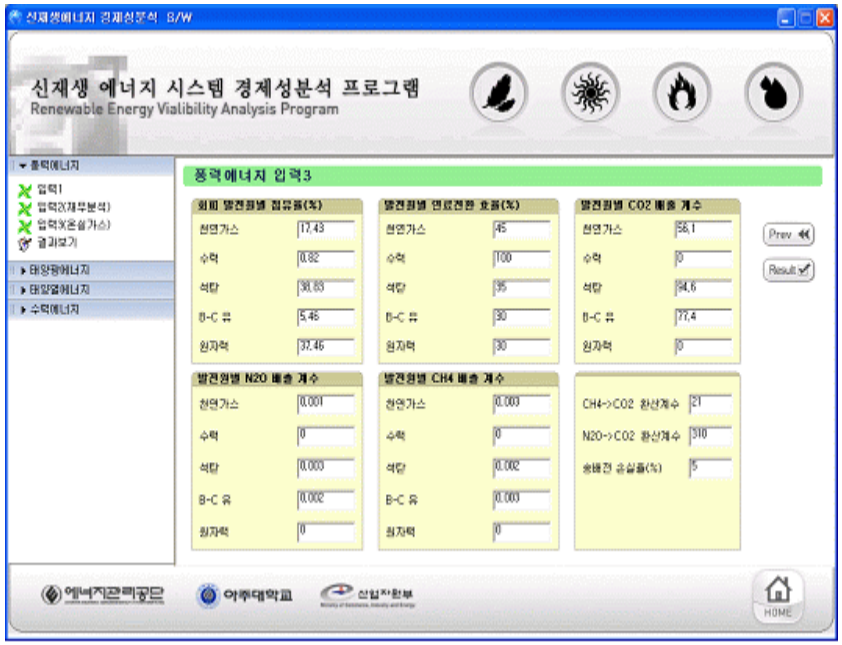


2차년도

1차년도, 2차년도 프로그램 비교(3/10)

온실가스 분석

1차년도



2차년도

KNOC
KEPCO
GCAM-EML
GCAM-EML

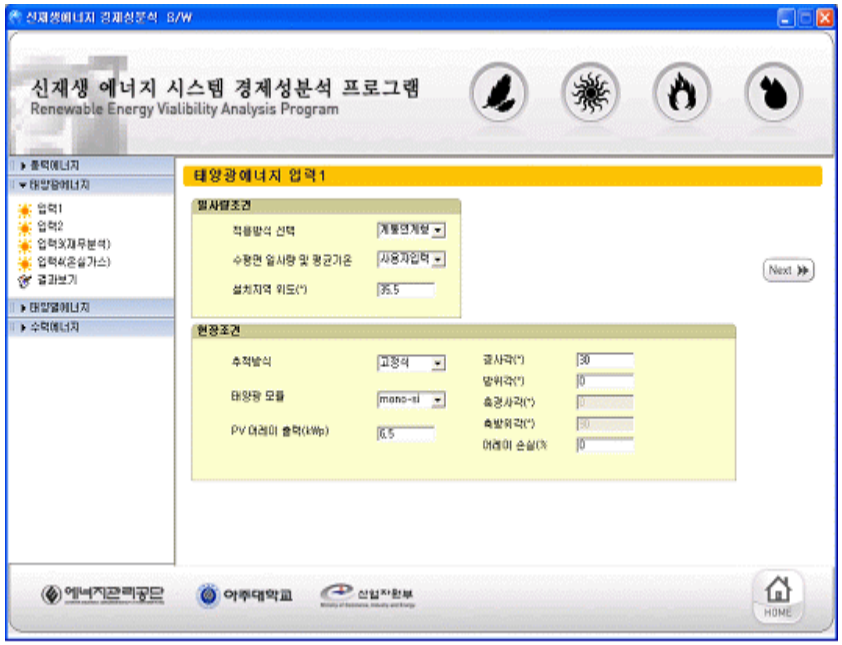
PV (REVAP v0.9)

신재생 에너지 시스템
풍력
태양광
태양열
소수력
지열
에너지관리공단
아주대학교
산업자원부
태양광 에너지

1차년도, 2차년도 프로그램 비교(4/10)

태양광의 에너지산출 입력화면(1)

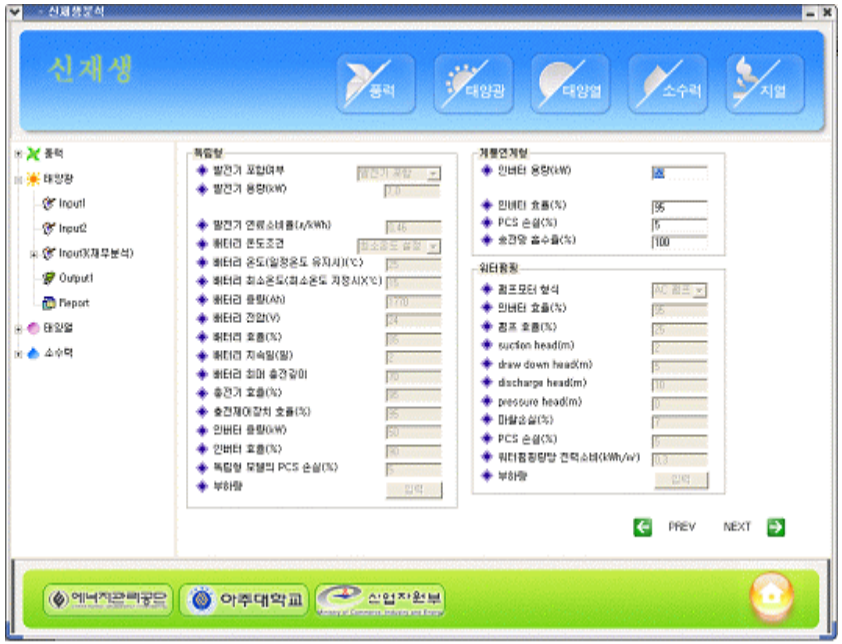
1차년도



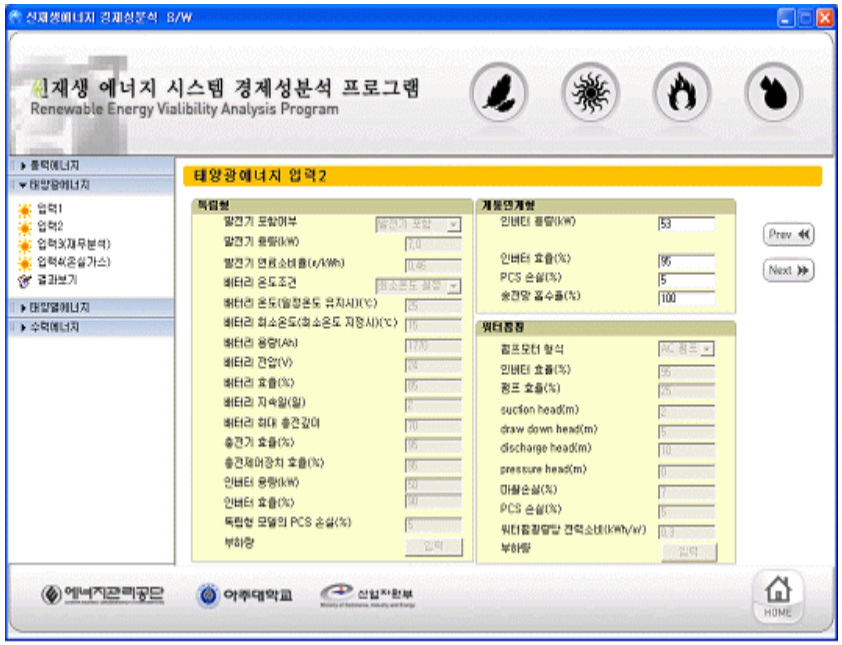
2차년도

1차년도, 2차년도 프로그램 비교(5/10)

태양광의 에너지산출 입력화면(2)



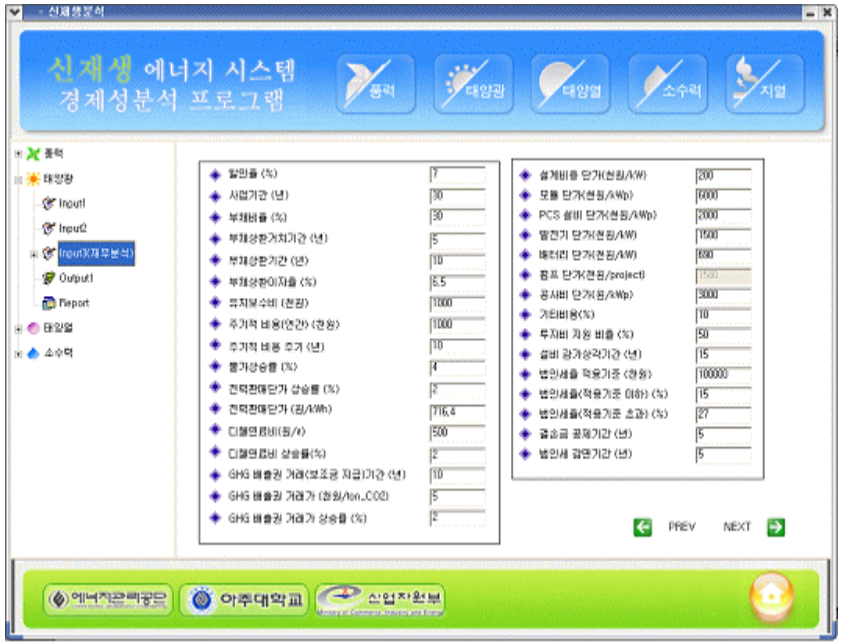
1차년도



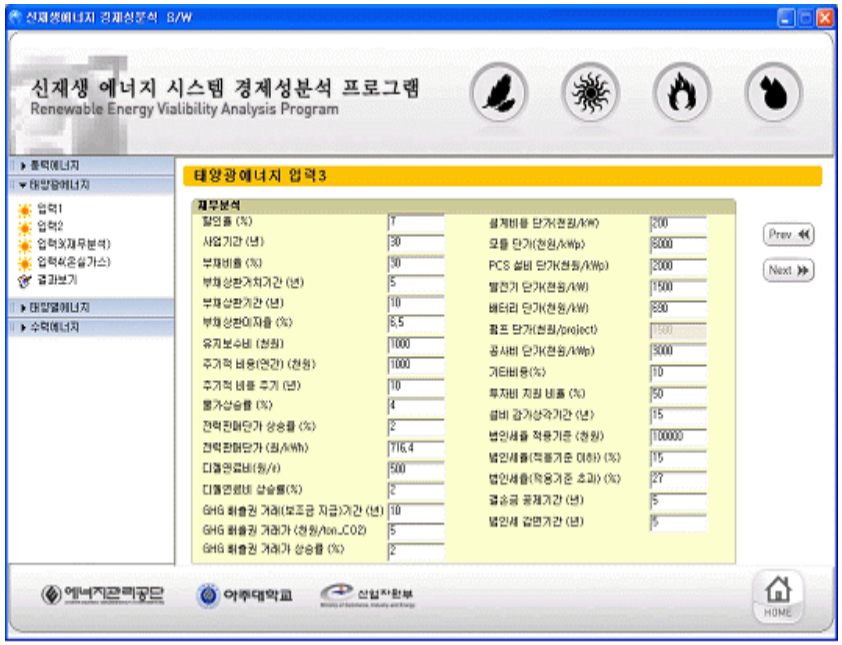
2차년도

1차년도, 2차년도 프로그램 비교(5/10)

태양광의 재무분석 입력화면

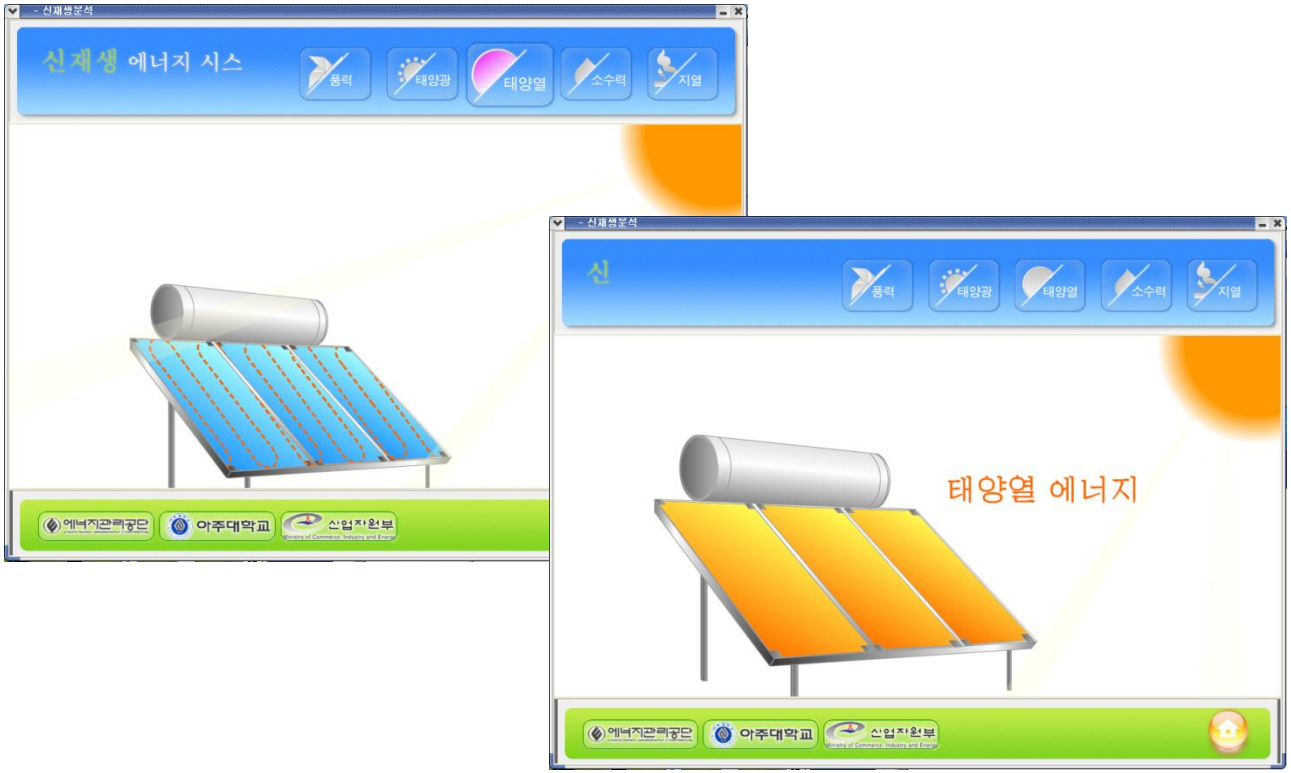


1차년도



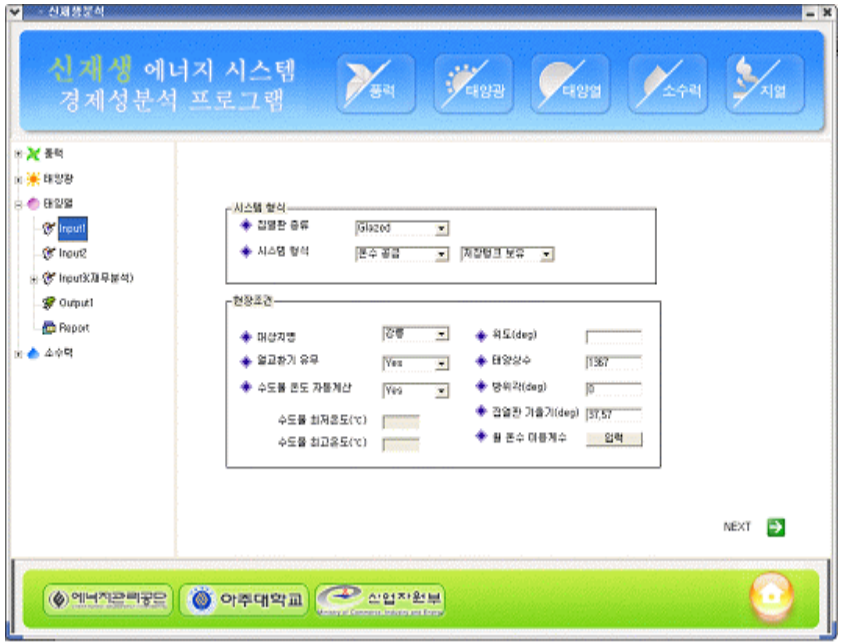
2차년도

Solar Heat (REVAP v0.9)

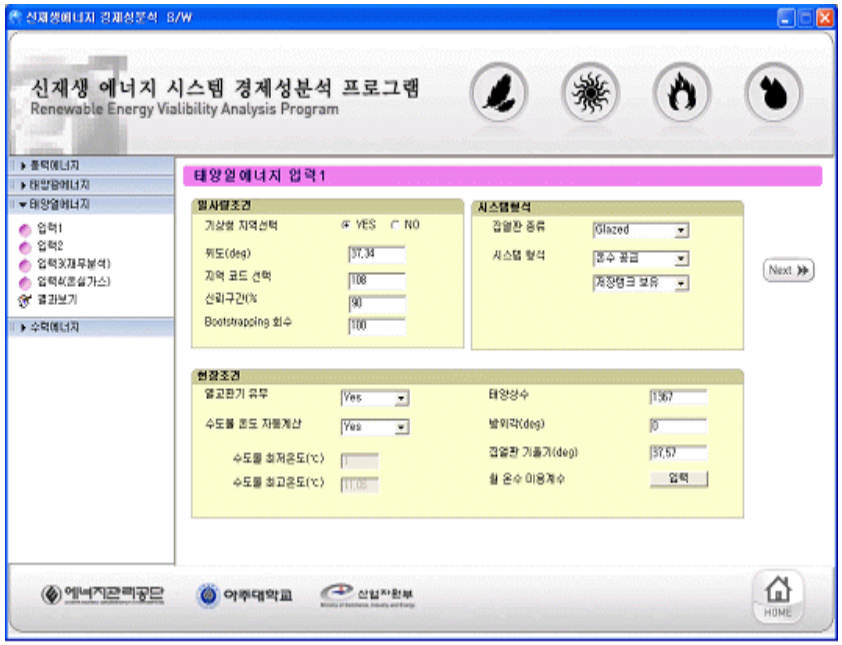


1차년도, 2차년도 프로그램 비교(6/10)

태양열 시스템 입력화면(1)



1차년도

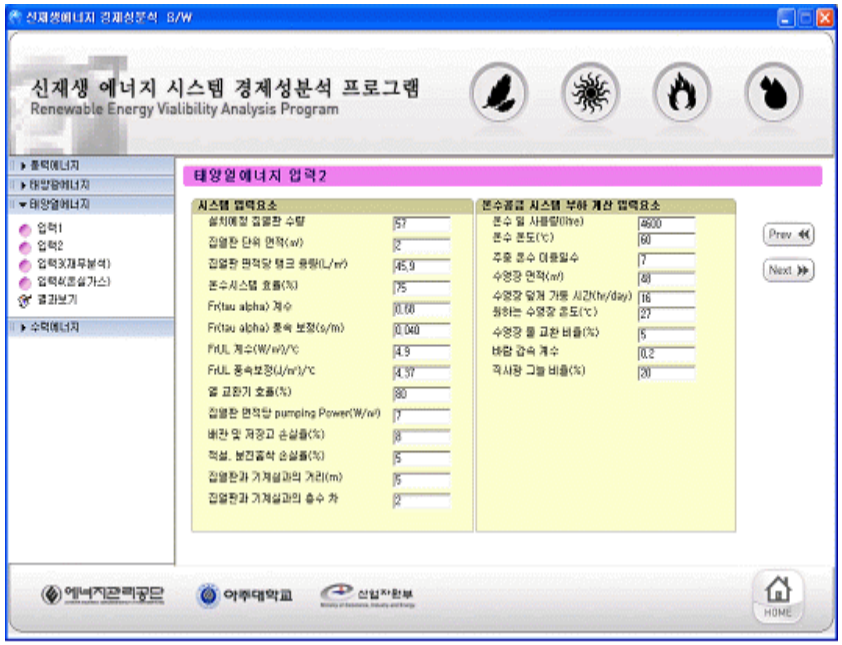


2차년도

1차년도, 2차년도 프로그램 비교(7/10)

태양열 시스템 입력화면(2)

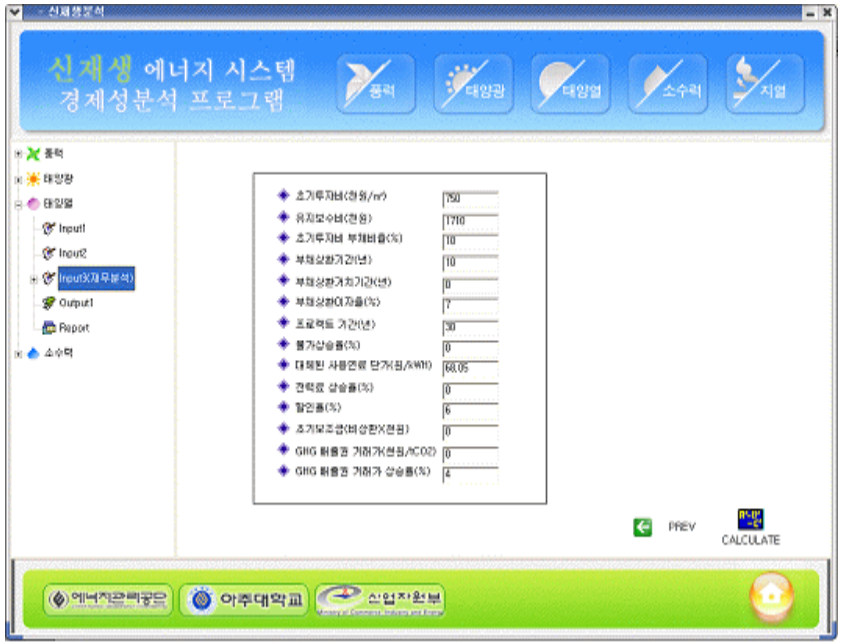
1차년도



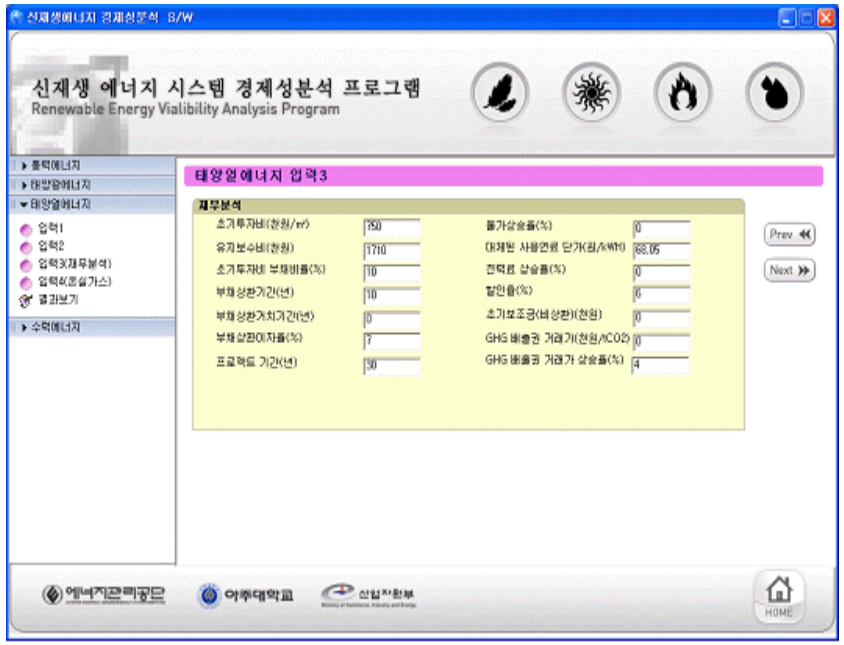
2차년도

1차년도, 2차년도 프로그램 비교(8/10)

태양열의 재무분석 입력화면

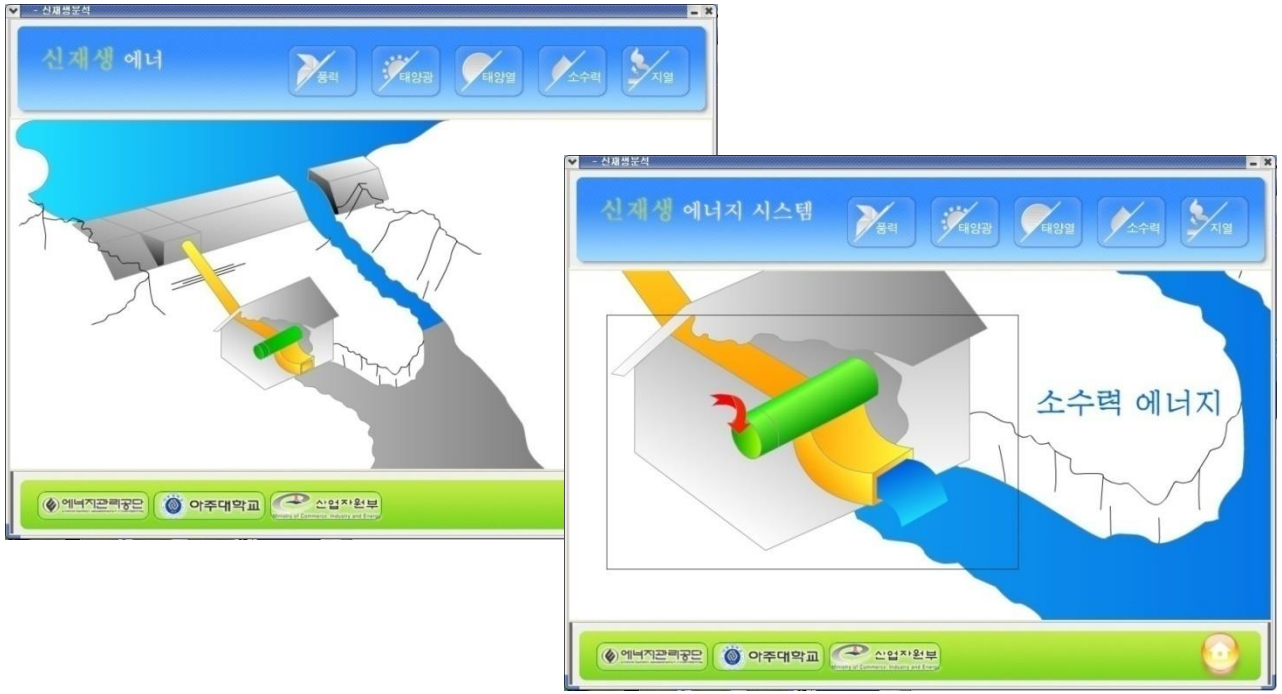


1차년도



2차년도

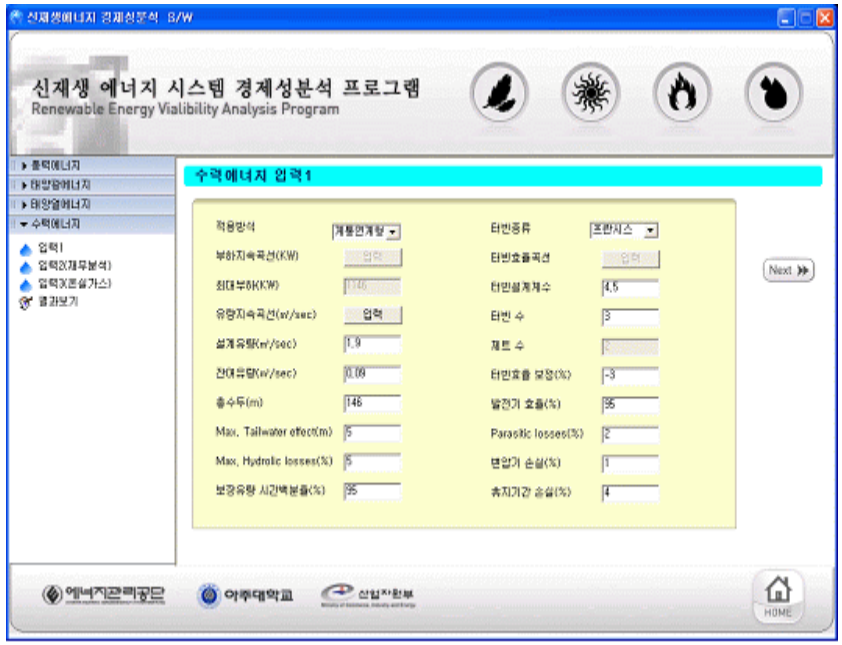
Small Hydro (REVAP v0.9)



1차년도, 2차년도 프로그램 비교(9/10)

소수력의 에너지산출 입력화면

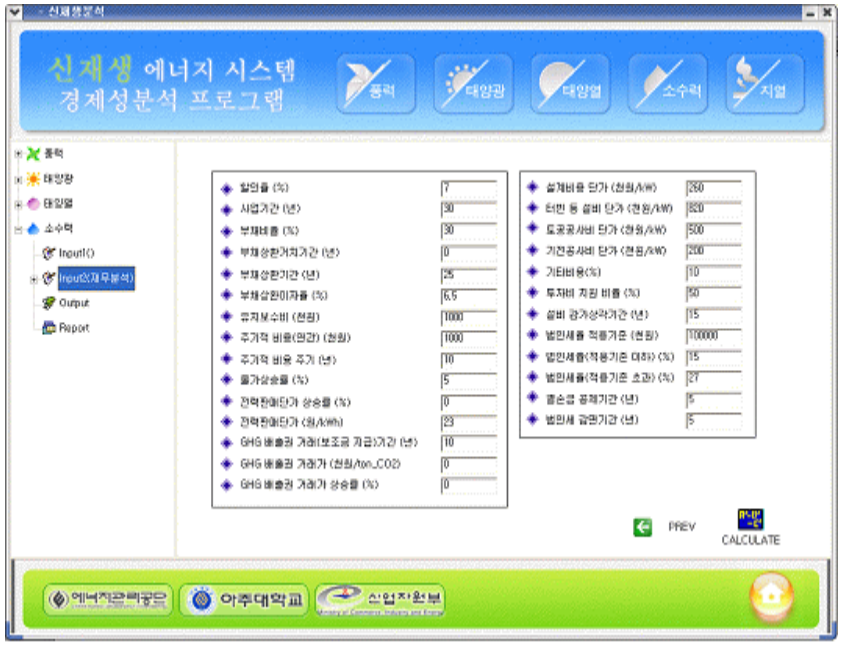
1차년도



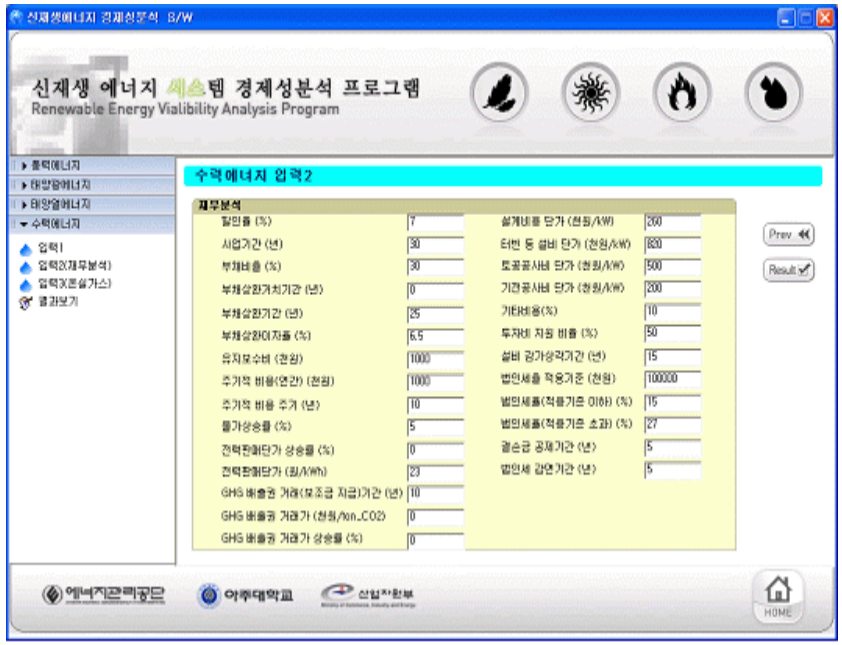
2차년도

1차년도, 2차년도 프로그램 비교(10/10)

소수력의 재무분석 입력화면



1차년도



2차년도

신재생 에너지 시스템
경제성 프로그램 베타9.0
아주대학교 에너지학과
에너지관리공단
산업자원부

신재생 에너지 시스템 경제성분석 프로그램
Renewable Energy Viability Analysis Program
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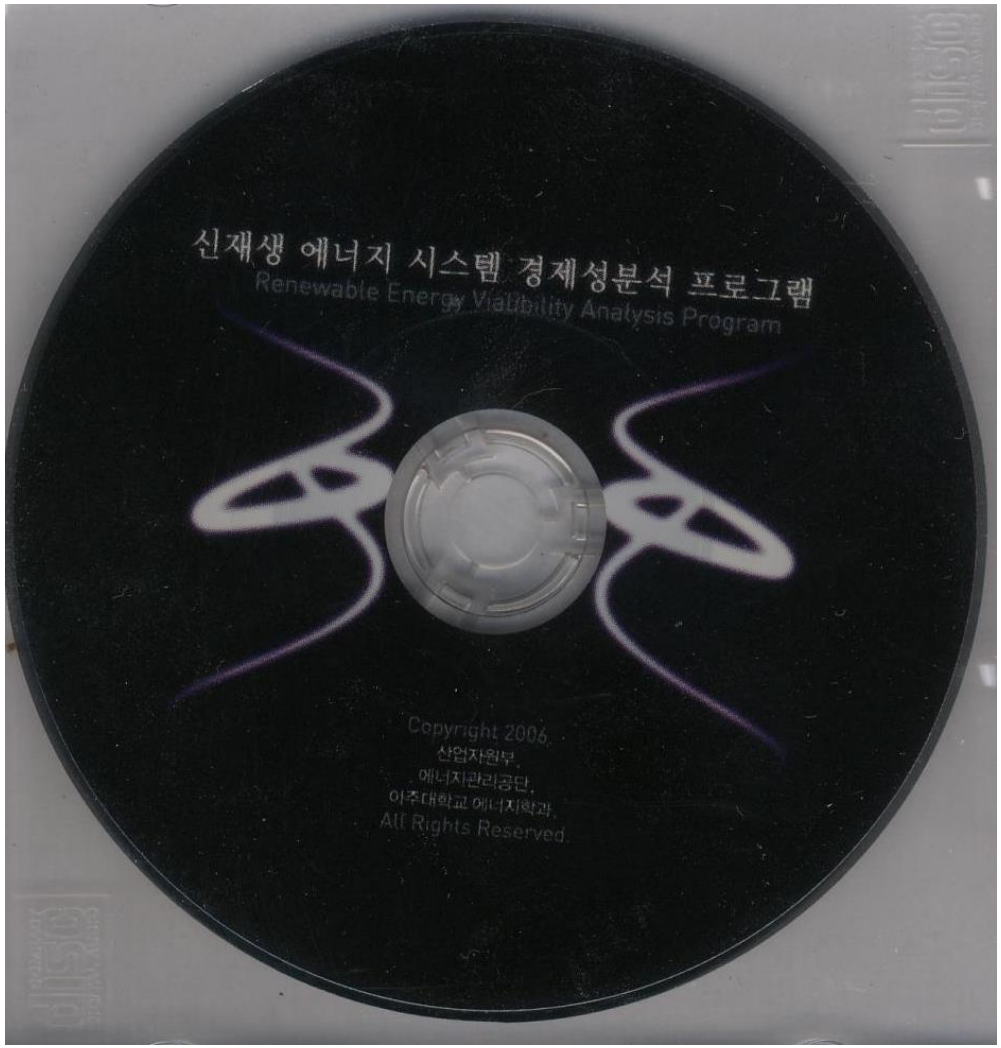
신재생에너지 경제성분석 S/W
신재생 에너지 시스템 경제성분석 프로그램
Renewable Energy Viability Analysis Program
풍력에너지
입력1
입력2(재무분석)
입력3(온실가스)
결과보기
CASE#1 대관령
CASE#2 영덕
CASE#3 행원
CASE#4 한경
CASE#5 진도
태양광에너지
태양열에너지
소수력에너지
풍력에너지 입력1
기상청 풍속자료선택 YES NO
년 평균 풍속(m/s) 6.19002
평균 풍속 상하한(%) 10
Shape factor 1.543
Shape factor 상하한(%) 10
풍속 측정 높이(m) 30
풍력터빈 설치높이(m) 50
Shear exponent 0.14
평균 대기압(kPa) 101.61
터빈 정격 출력(kW) 660
평균 기온(℃) 6.44
터빈 배열 손실률(%) 10
날개에 얼음 흡착으로 인한 손실률(%) 2
기기 보수등으로 인한 정지 손실률(%) 5
기타 손실률(%) 4
풍력터빈 대수 4
Next
에너지관리공단
아주대학교
산업자원부
HOME

프로그램 CD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Renewable Energy Viability Analysis Program
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에너지관리공단,
아주대학교 에너지학과,
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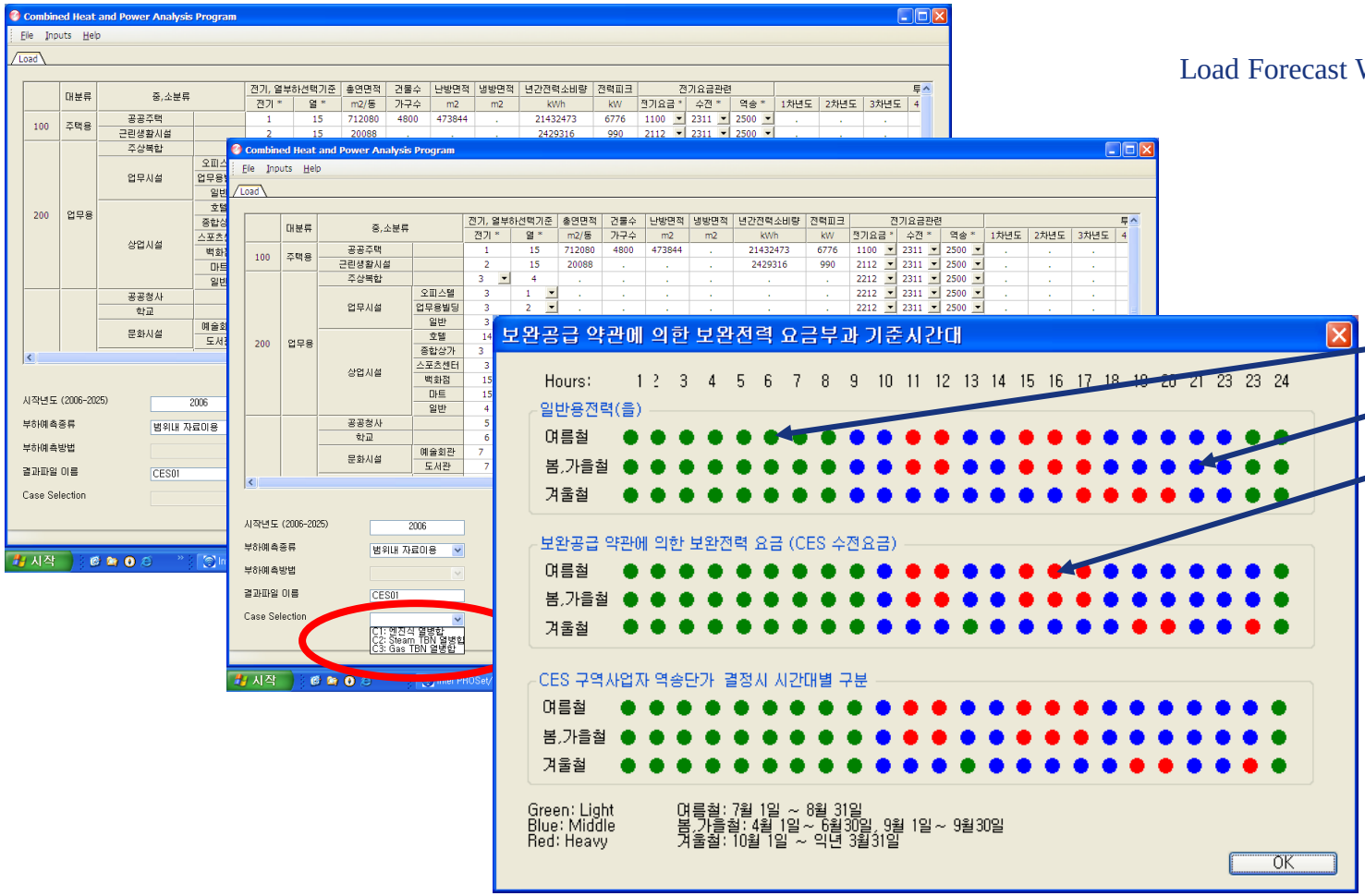
Model Development Experience by EML & Expected Stand-Alone Type of Tool

DHP(District Heat & Power) With GS Power



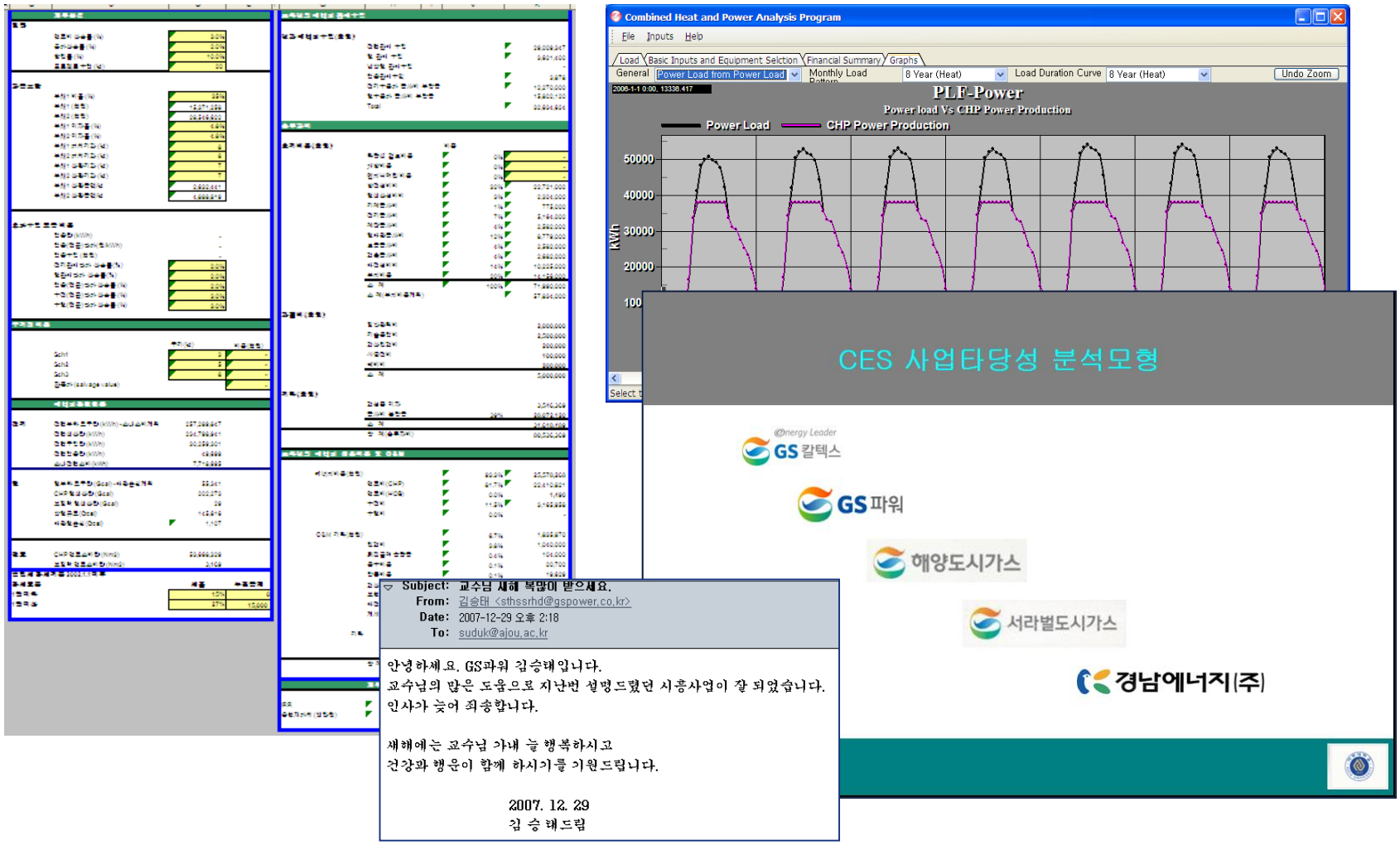
Load Forecast Window

Base load

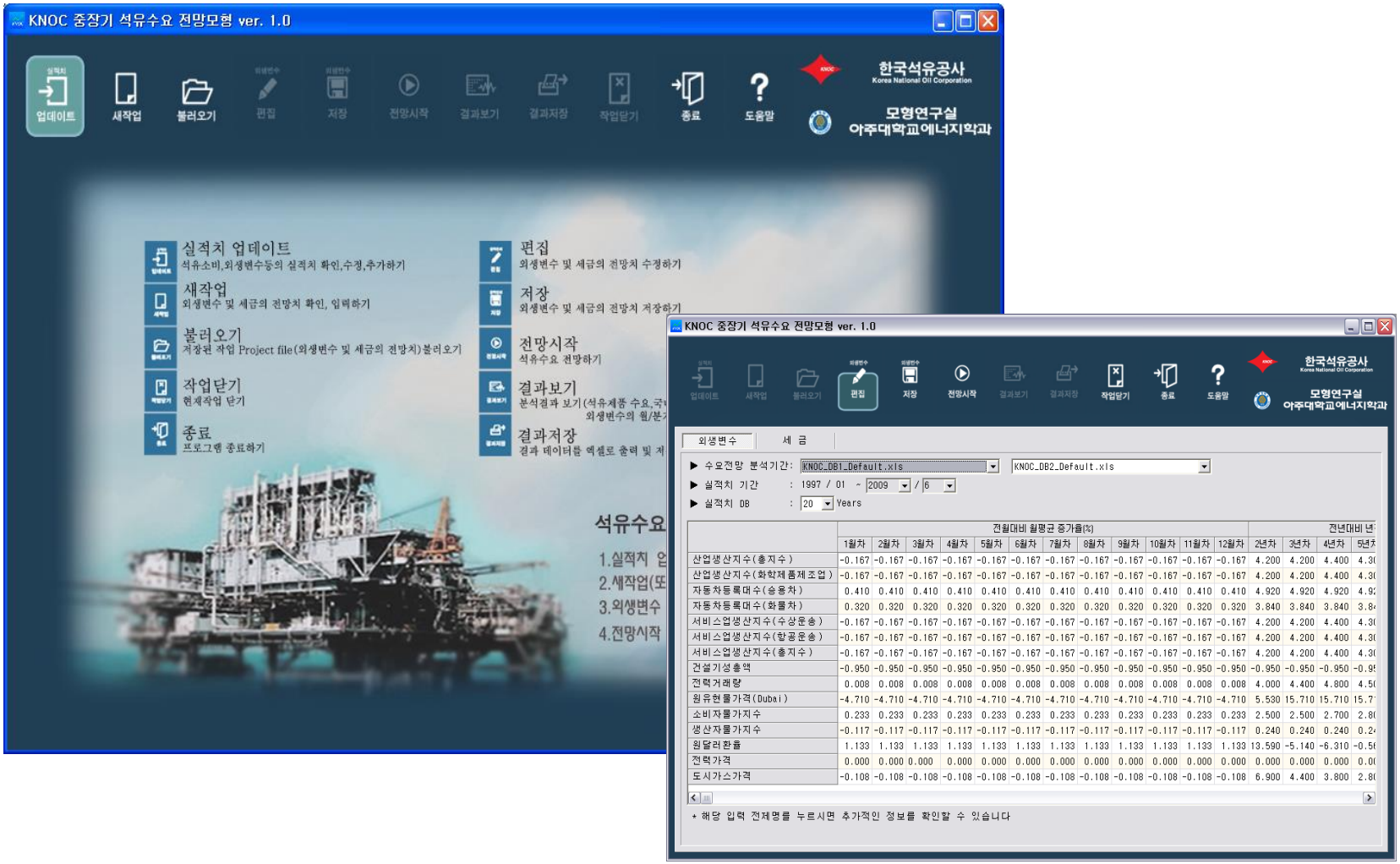
Intermediate load

Peak load

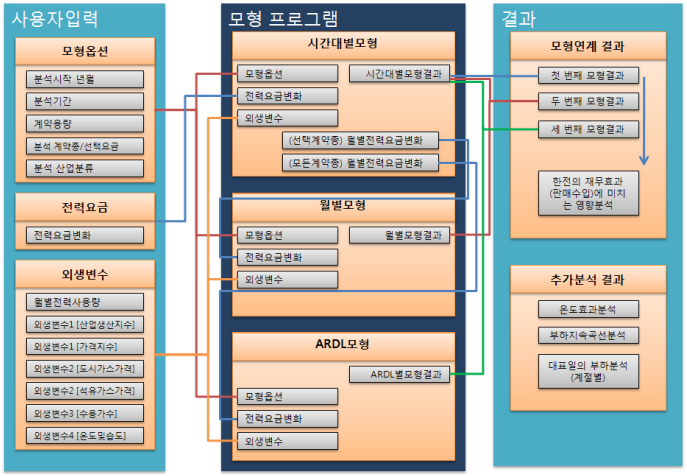
DHP(District Heat & Power) With GS Power

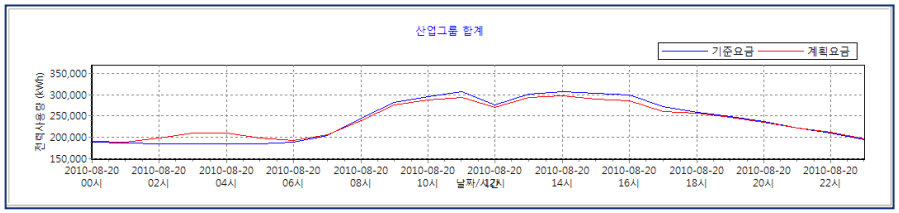
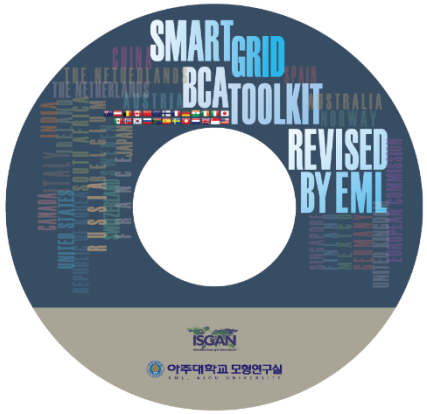
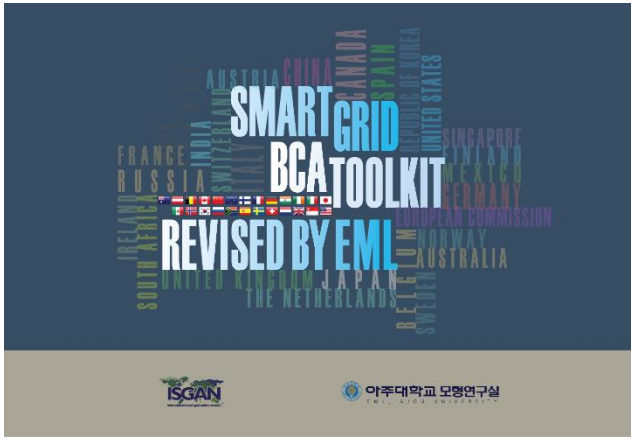
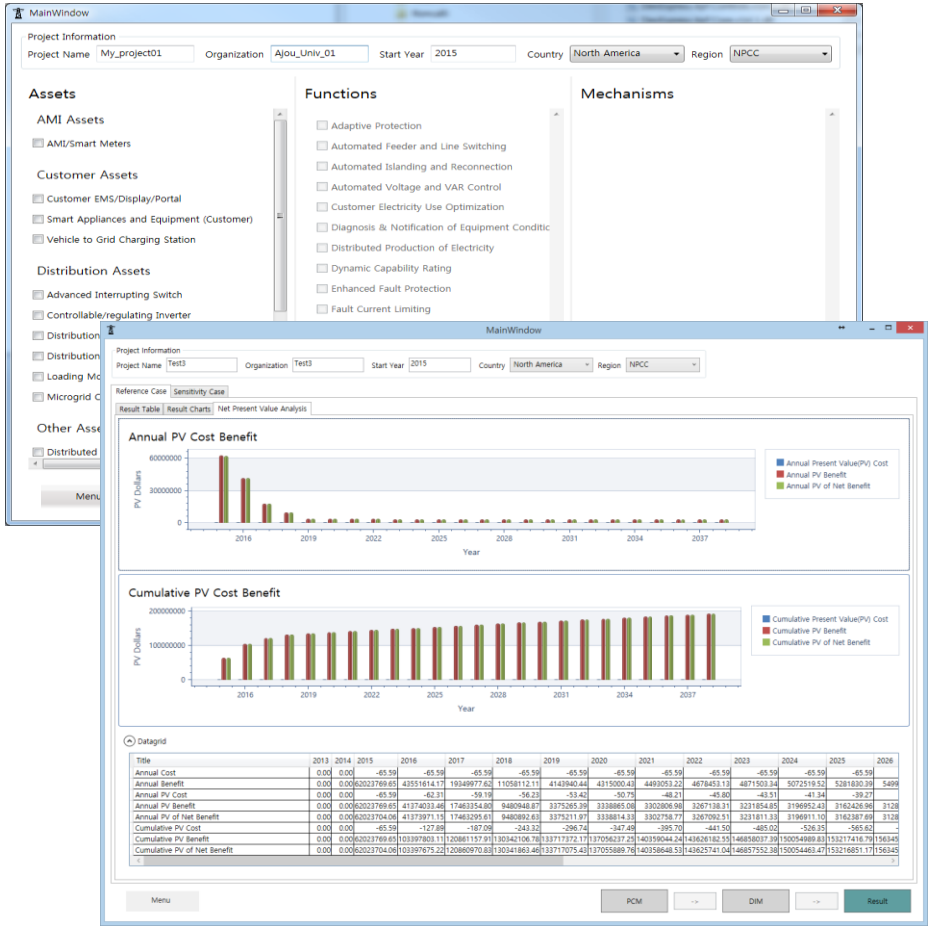


KNOC(Korea National Oil Company) Prj.



KEPCO (Korea Electricity Power Co.) Prj.





ISGAN BCA Toolkit