



Austrias funding programme for large-scale solar systems first-hand information

Funding programme „Large-scale solar plants (started in 2010)

Aims of the programme

- Starting point for a broad implementation of large-scale solar plants
- Practical experience & scientific progress
- Dissemination of project results (public data)

Goals of the Climate and Energy Fund

- Substitution of fossil fuels
- Acceleration of renewable energies
- Increasing energy efficiency

 Creation of a new market segment



Funding is provided for...

1. Construction of solar plants

- Solar systems from 100 m²
- New technologies and innovative approaches
 - In the range of 50-500 m²
- 6 thematic fields



Funding is provided for...

2. Accompanying research

- Advising applicants before submission (quality assurance)
- Measurement and scientific monitoring of plants in operation
- Publication of the results & know-how transfer





Funding is provided for...

3. Feasibility studies (new since 2020)

Supports the planning of projects for facilities over 5,000 m² with clear orientation of implementation



Call 2021-2023

- Last deadline 15.12.2023
evaluation ongoing
- Multiple submission deadlines
- Budget: up to € 45 million
- No size limit for solar plants
- Focus: large-scale solar plants
over 5,000 m²





6 thematic fields

- Solar process heat
- Solar district heating
- High solar ratio (at least 20%)
- Combination with heat pump incl. PVT
- New technologies
- Large-scale solar plants from 5.000m²

+ 25 % if the project is accompanied by accompanying research

Themenfeld	Förderungsbegrenzung
Solare Prozesswärme	700 Euro/MWh direkt nutzbaren Solarertrag pro Jahr
Solare Einspeisung in netzgebundene Wärmeversorgungen	550 Euro/MWh direkt nutzbaren Solarertrag pro Jahr
Hohe solare Deckungsgrade in Gewerbe- und Dienstleistungsbetrieben	950 Euro/MWh direkt nutzbaren Solarertrag pro Jahr
Solarthermie in Kombination mit Wärmepumpe	1.100 Euro/MWh gesamt nutzbaren Solarertrag pro Jahr 1.600 Euro/MWh gesamt nutzbaren Solarertrag pro Jahr bei PVT-Kollektoren ²
Neue Technologien und innovative Ansätze	keine Begrenzung
Solare Großanlagen ab 5.000 m ²	Wirtschaftlichkeitsberechnung

No limit with EAFRD (ELER) co-fund

Funding level

Fördergegenstand	Förderbasis	Max. Fördersatz
Solaranlage bis 2.000 m ² inkl. Verrohrung, Montage, Messtechnik, Planungskosten	UIK minus VA	40 % der MK plus Zuschläge: + 5 % KMU und NWT + 5 % Speicherinnovation für KMU und NWT
Solaranlage ab 2.000 m ²	UIK minus VA	Anteilig 30 % der MK + 5 % Speicherinnovation für KMU und NWT
Solaranlage ab 5.000 m ²	UIK minus VA	Anteilig 30 % der MK + 5 % bei Langzeitspeichern (ab 1.000 l/m ² Bruttokollektorfläche) in Kombination mit Wärmepumpe

- Thematic area 6: Limitation through economic efficiency calculation
- Partial disbursements are possible for funding of € 1 million
- or more



Large-scale solar plants from 5,000 m²

- Open for all applications, focus on solar district heating & process heat
- Funding for planning (15 % max.), solar system, storage tank, heat pump, integration into grid
- Submission possible for installations covered by the ETS
- Tailor-made accompanying research
- **Contacting KPC in advance – accompanied submission process**





Feasibility studies - innovations

2 types of feasibility studies:

- a) Overall feasibility studies
- b) Organisational-economic feasibility studies

Notwendige Inhalte	gesamthafte Machbarkeitsstudie	organisatorisch-wirtschaftliche Machbarkeitsstudie
Allgemein	vollumfänglich	vollumfänglich
Technisch	vollumfänglich	Anpassung bereits vorhandener Konzepte
Wirtschaftlich / Rechtlich / Sonstiges	vollumfänglich	vollumfänglich

- **Implementation orientation essential**
- **Submission of the implementation project in the following year desired**



Funding for feasibility studies

Anlagengröße	Honorar (max.) gesamthafte Machbarkeitstudie in Verbindung mit Kurzzeitwärme- speicherung	Honorar (max.) gesamthafte Machbarkeitstudie in Verbindung mit Langzeitwärme- speicherung	Honorar (max.) Organisatorisch- wirtschaftliche Machbarkeitstudie	Honorar (max.) Organisatorisch- wirtschaftliche Machbarkeitstudie mit Langzeitwärme- speicherung
Anlagen größer 5.000 und kleiner oder gleich 10.000 m²	€ 35.000,-	€ 52.500,-	€ 16.000,-	€ 24.000,-
Anlagen größer 10.000 und kleiner oder gleich 30.000 m²	€ 50.000,-	€ 75.000,-	€ 23.000,-	€ 34.500,-
Anlagen größer 30.000 m²	€ 65.000,-	€ 97.500,-	€ 30.000,-	€ 45.000,-



**What has been
funded so far...**



Numbers, data, facts

212.828 m²

Subsidised collector area

Or 30 football fields

359

Funded projects

61 512 147,92 euros

Funding amount

5.750 m²

Austria's largest solar plant in Friesach

141 820 875,00

euros

Triggered investment

618 927 tons

CO₂-savings over lifetime

Or over 6.000.000.000 car kilometers

1 657 301 MWh

solar yield over lifetime

25,8 million euros

Additional value creation with funding of € 15 million (extrapolation)¹

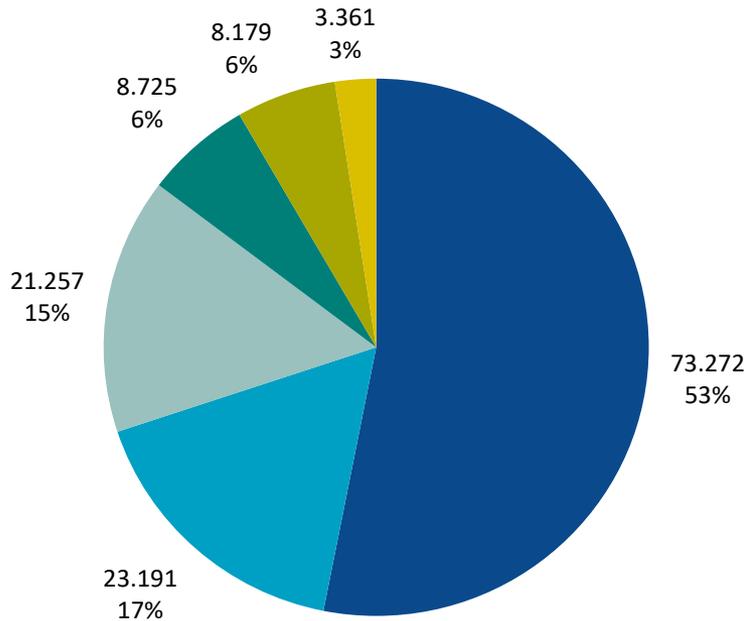
250

Additional employees (FTE) with funding of €15 million (projection)¹

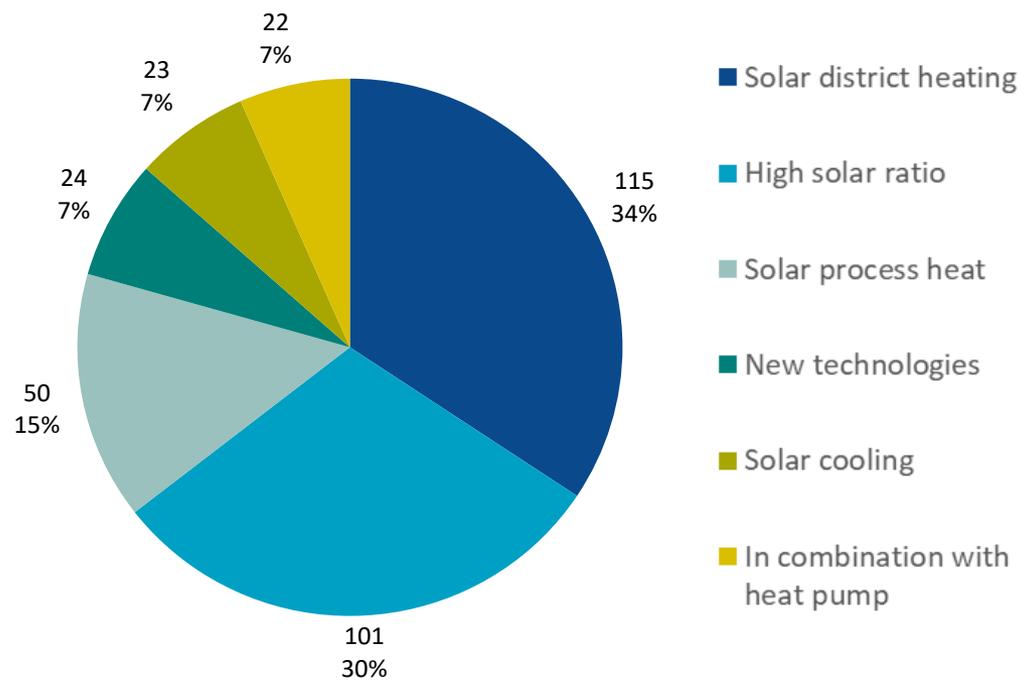


Projects funded so far

Thematic fields by m²



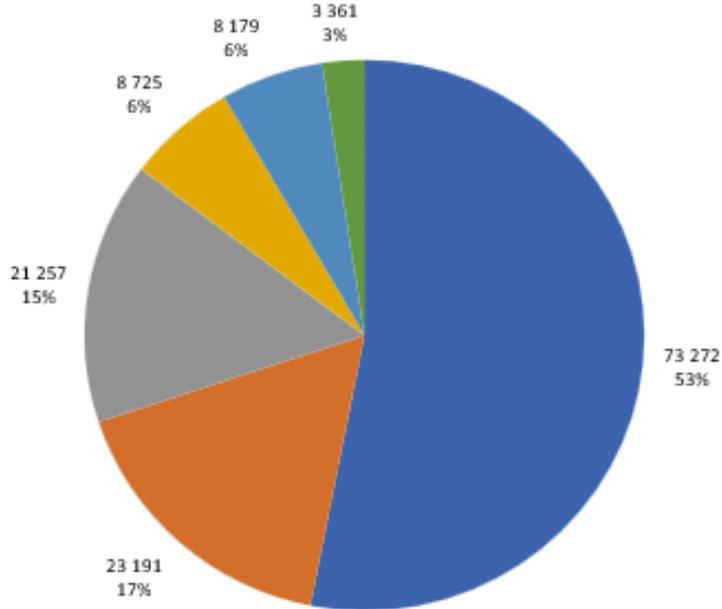
Thematic fields by number of plants



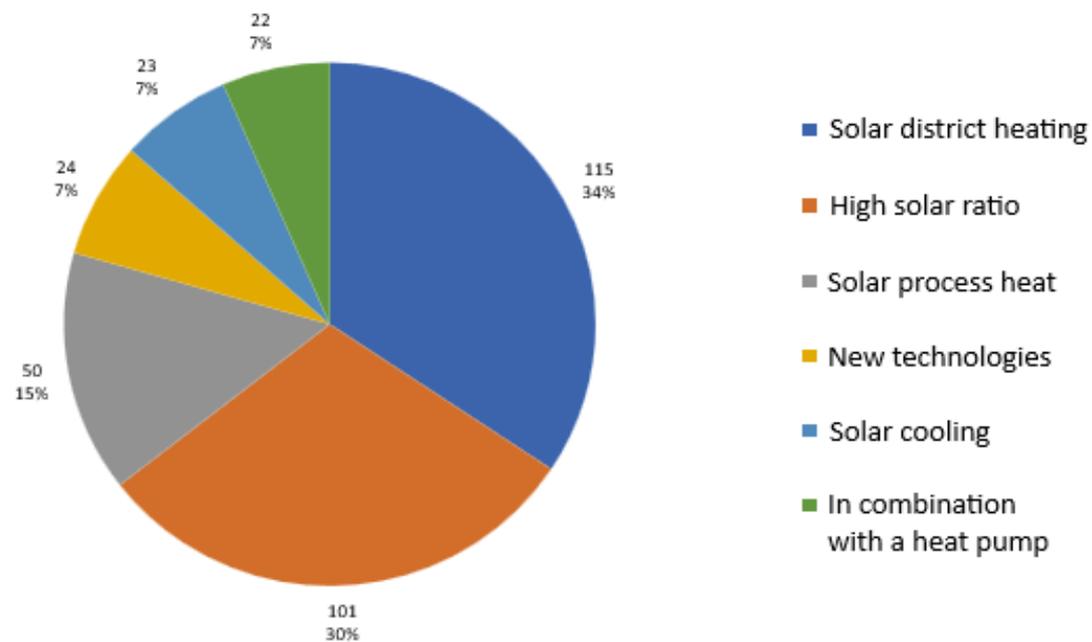


Projects funded so far

Thematic fields by collector surface [m²]



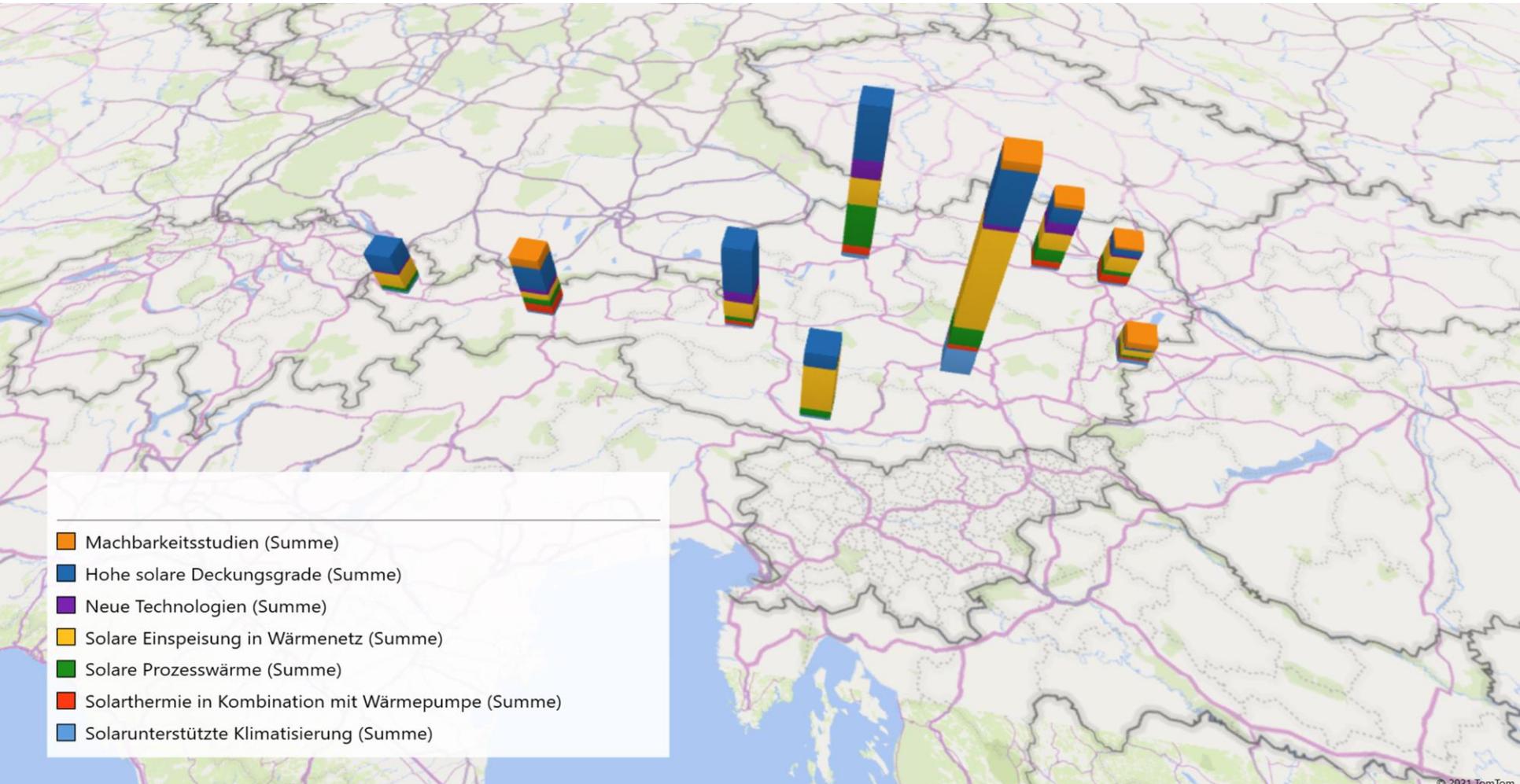
Thematic fields by number of plants



- Solar district heating
- High solar ratio
- Solar process heat
- New technologies
- Solar cooling
- In combination with a heat pump



Geographical distribution



Numbers, data, facts Feasibility studies

27

Funded projects

50.000 m²

Largest plant

695,25 million euros
Potential investments
(projection)

1.043.335 m²

Subsidised collector area

Or 139 football fields

31.616 m²

Average collector area

4.524.975

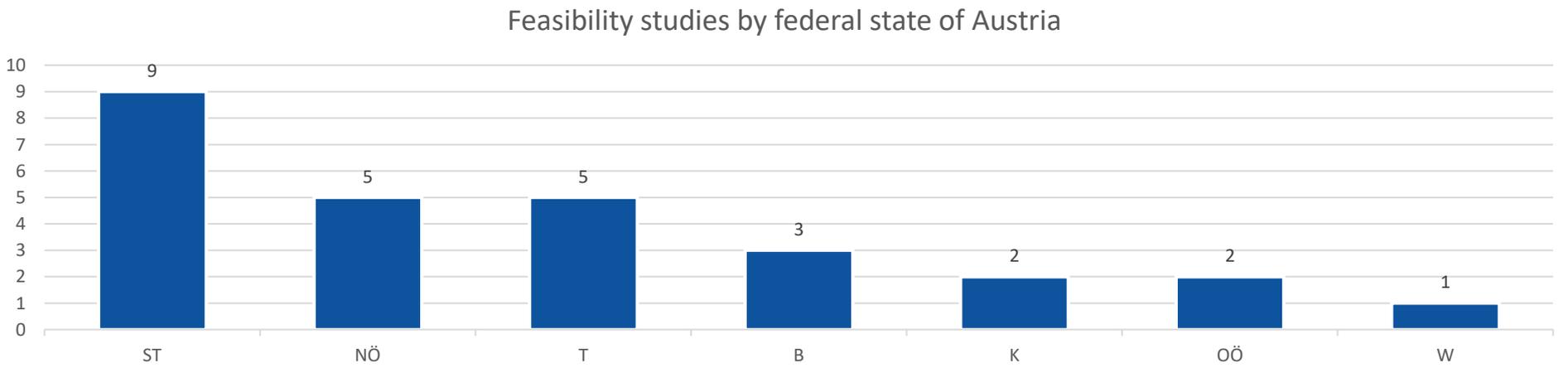
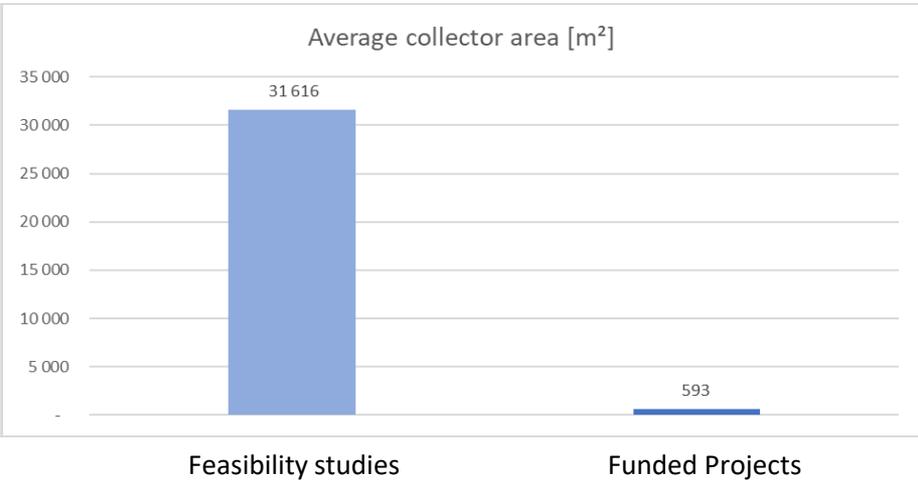
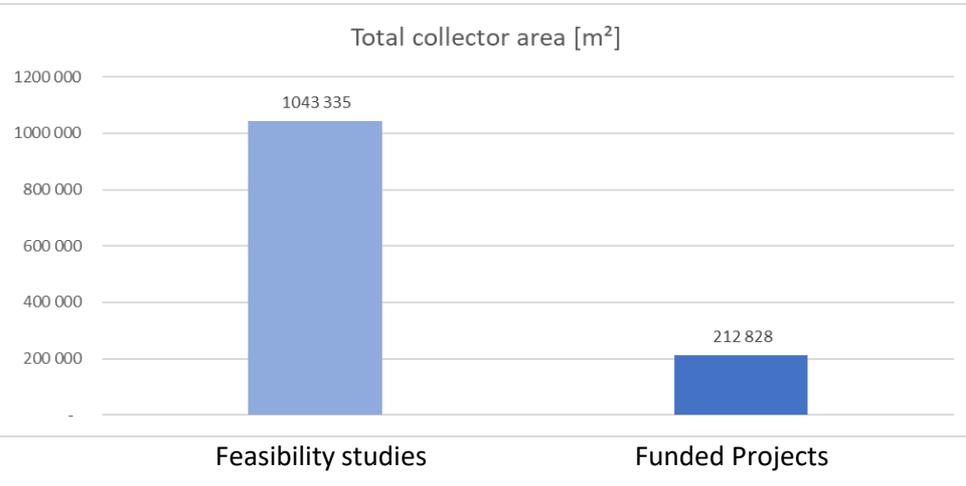
MWh solar yield over
lifetime

3.034.125 tons

Theoretical CO₂
savings over lifetime
(extrapolation)



Results of feasibility studies



Summary...

- Solar thermal energy is important for a future energy system
- Know-how development regarding large-scale solar plants has been successful
- Today most funding projects are integrated energy systems
- Large projects have very long lead times.
- Feasibility studies are a good tool for preparing large projects.
- The future focus is more on renewable system solutions, hence two new programs:
 - a) Industrial low-temperature heat (process heat)
 - b) Flagships of municipal heat transition (district heating)



Further information

www.klimafonds.gv.at

www.solare-grossanlagen.at

“Large-scale solar plants in Austria” 

https://www.youtube.com/watch?v=iPord8oA2cE&feature=emb_logo

Contact

Gernot Wörther

Climate and Energy Fund
Programme Manager

E-Mail: gernot.woerther@klimafonds.gv.at

