



***SDHplus***  
**Solar District Heating in Europe**

*WP2 – SDH enabling buildings with high energy performance*  
*Task 2.2 – Development of adapted and/or new models*

**D2.4 – Report on adapted  
and/or new possible models**  
**Format for reporting (language: English)**



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## INTRODUCTION

*The information must be provided **in English**.*

**Country**

**Responsible partners for the deliverable (organizations and persons)**

**Date of last information update**

## TOPICS TO BE INCLUDED

1. *Which models are you planning to replicate? Please choose from D2.3 document*

SOLID was elaborating a new business model last year and is not planning to replicate one of these models, which are described actually in the D2.3 document. The model, which SOLID has elaborated is not described in D2.3 yet, but will be filed subsequently as soon as possible. SOLID is well known for realizing ESCO concepts for the customer, where the customer pays not for the installation but for the kWh of solar heat, mainly for solar district heating plants. Due to changing financial framework conditions in Europe, it has become more difficult for SMEs to get loans for new projects. Therefore, SOLID has launched a new investment model for solar thermal systems with public participation, called "SOLID Invest". This model provides citizens the opportunity to take responsibility for renewable energy developments by supporting the realization of new solar thermal projects on regional and global level. More information at [www.solid.at/invest](http://www.solid.at/invest) (at the moment in German, only).

2. *Which are the main changes needed in order to replicate the chosen models in your country?*

3. *Which stakeholders (utilities, local authorities, etc.) do you plan to involve?*

- investment company
- private investors
- financial market supervision authority
- energy purchasers
- public funding authorities, private banks

4. *Please describe how the model will work and the role of the different stakeholders*

### Investment Company

One major stakeholder is SOLID International GmbH, the company which takes the loans from the investors. It has to manage the invested money responsibly and supervise the Esco companies. It also has to communicate with existing and future investors. It has to pay the annual interests to the investors and pay back the loan after end of contract. Here the minimum duration of the contract is five years. After this period, the contract can be cancelled by each party.

### Private Investors

The private investors are a very relevant stakeholder group. A target group of well-off, green minded individuals was defined. This target group was reached by marketing events in Graz and surroundings and also through media campaigns. Typical invests are from 2.000 €, the min-

imum amount, up to 25.000 € For the majority of the people investments up to the amount of 16.000 € (1st edition) respectively 18.000 € are favorable due to Austrian tax rules.

#### Financial Market Supervision Authority

As all financial business is under the auspices of the financial market supervision authority, the lending based crowd funding model has to comply with the rules of the Austrian Finanzmarktaufsicht (FMA). The chosen model requires no control from FMA.

#### Energy Purchasers

Another important stakeholder group are the future energy purchasers of the energy service companies. Here these are the regional utility of Styria, a large industrial company as well as a heat supplier in Upper Austria. The energy purchasers have to show a financial commitment to the project in the beginning and also give guarantees for a long term heat purchase, normally 8 to 20 years.

#### Public Funding Authorities, Private Banks

All invested solar plants are planned to be financed only partly by the relatively expensive crowd funding. Currently SOLID Invest is at an annual interest rate of 4,0 %, while bank loans currently have much lower interest rates. For the 1<sup>st</sup> edition that started at November 14<sup>th</sup> 2013 and ended an May 31<sup>st</sup> 2014, the interest rate was even at 4,5 % p.a. For the finance plan of the Escos, the crowd funding is regarded as equity and is supposed to have a share of 15-20 % of the total invest. The remaining 75-80 % will be financed by public funding for renewable energy installations, the energy purchaser and mainly by bank loans. So public funding authorities and private banks are also major stakeholders.

#### *5. What is the final aim of the model implementation?*

The final aim of the implementation of this model is an easier and faster realization of large scale district heating plants in general, and especially solar district heating plants. A lot of solar district heating projects are sticking in the project development phase because the client, most of the time energy utilities are not willing to invest in such renewable energy projects. The other alternative are Energy Service Models (see Pt. 1). However, the big challenges within those Models are, that SOLID does not get the loan from the banks for investing in these projects or the conditions for the interest rate are too high (due to risk groups – Basel III). If SOLID uses the loans from the citizen as one part of the whole financing package, it's easier to get the rest of the money with better conditions from the banks.

The first Milestone of SOLID was to generate 1.5 Million EUR with the public participation model SOLID Invest. Mid of May 2014 the target was reached. The capital is used for financing several large scale solar thermal ESCO projects. One part of this money is currently used for realizing a SDH plant in Graz with an extension of 2,000 m<sup>2</sup> collector field at the AEVG.

The overall target is to manage the challenges of the financial sector for financing new ESCO projects. This includes being flexible with the model and constantly working out a balance between supply (financing existing and new solar projects) and demand (existing and new investments of private investors).

6. *Please include the foreseen timetable for the model implementation (hearing with stakeholders, preparation of draft documents, etc.)*

For the first phase, the target budget of 1.5 Million EUR was reached by the mid of May. So far, two new projects are already financed by SOLID Invest and banks. Some further projects, which should be financed through SOLID Invest are in the development phase. Basically it can be said the if new ESCO-projects are in the pipeline, new investors are requested.

7. *Describe the replication potential of your model (NEW)*

Solar district heating plants still are a nice market, however the potential for the technology is vast. Clients often prefer the ESCO model where they just pay for the produced kWh of solar heat instead of the whole turn-key system. Very often financing is the most challenging part of the projects due to a combination of a lack of awareness of the technology and the current financial conditions for loans of banks (Basel III). The new way of financing SDH-projects via Crowdfunding is still in its infancy. "SOLID Invest", our new investment model with public participation is just one example how to handle the market potential for SDH-ESCO projects and their financing through Crowdfunding. People are looking for options for investments well spent and renewable energy is an ecologically worthwhile topic. So depending on the company (ESCO expertise) and the local market - the legal and financial framework conditions – there is a replication potential for alternative financing models such as SOLID Invest.

8. *Explain how is your model related to WP2, that is how the supply of solar district heat for new or existing and renovated buildings / settlements with high energy performance or even at nearly zero-energy standard can be a business opportunity (NEW; this part will not be published)*

All SDH projects that are based on an ESCO model can be a business opportunity. SOLID Invest can be an attractive "door opener" for new projects. Besides providing financial benefits, the marketing effect can be an additional motivation for the client.

9. *Explain how you and the SDHplus project take part in the model implementation, e.g. you are the consultant, you provided the stakeholders with information, you are the DH association, etc. (NEW; this part will not be published)*